INTERREGIONAL INTERACTION, SYMBOL EMULATION, AND THE EMERGENCE OF SOCIO-POLITICAL INEQUALITY IN THE CENTRAL MAYA LOWLANDS

by

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ABSTRACT

In recent decades, scholars have increasingly turned to agency or actor-based models to explain the origins of social and political inequality. In part, this theoretical shift stems from the inadequacy of ecologically based models, especially where population levels are low and resources are abundant. Accordingly, social strategies that promote group solidarity while at the same time allowing individuals to transcend the egalitarian ethic are sought to explain the archaeological record. The transfer of religious beliefs to visual media represents a strategy which may be controlled by small segments of society or individuals, particularly religious practitioners. In many regions of Mesoamerica the Olmec art style emerged very rapidly around 1200-1150 B.C. and persisted for approximately 300 years. Though most scholars agree that this "Early Horizon" style—carried by ceramic figurines and carved and incised motifs on the exterior of pottery vessels—was religiously based and used to define social status, its origins have been the focus of heated debate; some suggest that it was inspired and diffused by the Gulf Coast Olmec culture, others suggest that it evolved independently in each region, the result of a pre-existing belief system. Recent excavations at the central Maya Lowland site of Cahal Pech have yielded objects reminiscent of the Early Horizon style from specific contexts of a slightly later date (c. 1000-800 B.C.). This study analyzes the style and context of two artifact classes from the earliest deposits at Cahal Pech: incised ceramic vessels and figurines. These data are compared to figurine attributes and incised motifs from several regions of Mesoamerica in order to differentiate between local and pan-regional styles. I argue that inter-regional contact, specifically the adoption of political-religious symbols and attendant behavior from other regions of Mesoamerica, was responsible for the relatively late appearance of the Early Horizon derived or "Intermediate Horizon" style at Cahal Pech. I conclude that inter-regional interaction involving symbols is linked to internal competition and supernatural beliefs at the local level, was encouraged by the self-interest of politico-religious actors, and that the emergence of social and political inequality in the Belize Valley of the central Maya Lowlands is attributable to this process. This model is contrasted with the Olmec-centric and regional developmental perspectives; all three are tested against ceramic and figurine data at Cahal Pech.

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INTRODUCTION

The foundations of socio-political inequality in the central Maya Lowlands have perplexed archaeologists for nearly a century. In part, this stems from a lack of data preceding the Middle Formative period (Figure 1), when settlements typically included domestic and small-scale ceremonial architecture, pottery vessel and figurine production, and extensive trade networks for the procurement of exotic status goods. Although it is not known whether the initial occupants of these settlements were indigenous peoples or colonists from neighboring regions, once settled, intra- and inter-regional contact was frequent, presumably directed by hereditary privileged leaders who also organized public works projects such as the recently discovered late Middle Formative ceremonial architecture and colossal stone monuments of Nakbe, Guatemala (Hansen 1991). This paper examines when the process of political power and persuasion began in the central Maya Lowlands, its basis, and its possible connection to long-distance contact.

Archaeological investigations at the site of Cahal Pech, Belize (Figure 2), have uncovered the oldest village site in the central Maya Lowlands to date (Awe 1992; Awe and Cheetham 1993; Cheetham 1992, 1995, 1996; Healy and Awe 1995). From about 1000-800 B.C., the occupants of Cahal Pech built domestic architecture, imported exotic goods, produced figurines, textiles, a distinctive assemblage of ceramic vessels, and practiced a varied subsistence strategy that included maize agriculture. Perhaps the most surprising aspect of this early occupation, known as the Cunil phase, was the use of complex symbols reminiscent of an "Early Horizon" symbol system—sometimes called "pan-Mesoamerican" or "Olmec"—which existed in many regions of Mesoamerica about 1200-900 B.C. Objects in the derivative or "Intermediate Horizon" (900-500 B.C.) style at Cahal Pech include incised ceramic vessels and portable artifacts which were exclusively associated with a single sequence of architecture, suggesting that access to these symbols was controlled or, at the very least, restricted to use at a specific location. Many of the symbols are similar or identical to those of other regions of Mesoamerica, raising the possibility that they may have been transmitted to the site by means of inter-regional interaction.

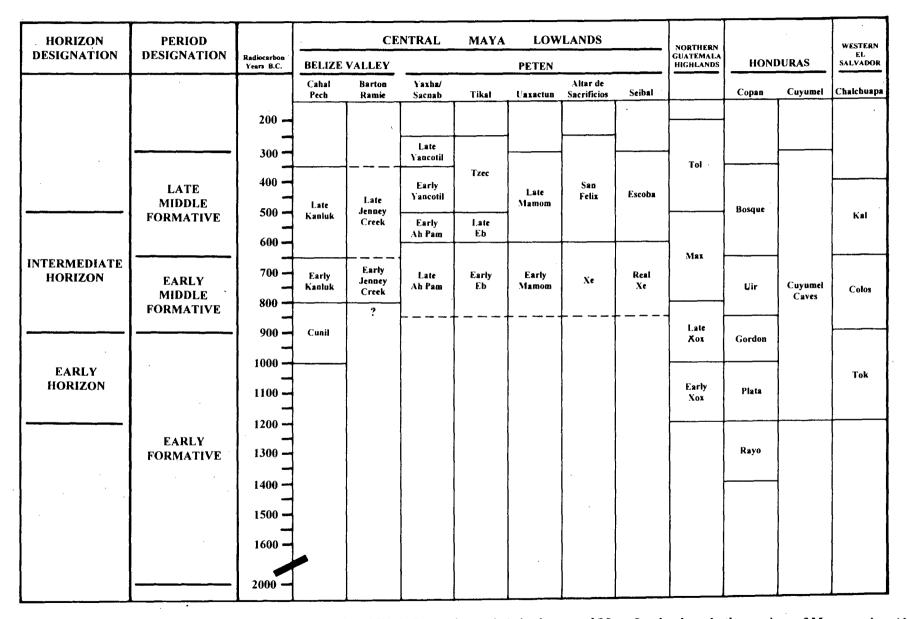


Figure 1. Chronological sequences for the Early to late Middle Formative periods in the central Maya Lowlands and other regions of Mesoamerica. All dates are uncalibrated.

HORIZON DESIGNATION	PERIOD DESIGNATION	Radiocarbon Years B.C.	CENTRAL MAYA LOWLANDS	CENTRAL DEPRESSION (CHIAPAS)		SE PACIFIC COAST			VALLEY	CENTRAL MEXICO		
							GULF COAST		OF OAXACA	VALLEY OF MEXICO	TEHUACAN VALLEY	MORELOS
!			Cahal Pech	Mirador	Chiapa de Corzo		San Lorenzo	La Venta	San José Mogote	Tlatilco/ Tlapacoya		Chalcatzing
		200 —										
: !		300 -		Pompac							, . }	
	LATE	400			Francesa			 -				
	MIDDLE FORMATIVE	500 —	Late Kanluk									
		600 -		Sapatah	Escalera			Late La Venta		Early La	· · · · · ·	Late Cantera
INTERMEDIATE HORIZON	EARLY	700 —	Early			Late Conchas	 			Pastoria	Early	Early Cantera
	MIDDLE FORMATIVE	800 -	Kanluk	Quequepac	Dili	Early Conchas	Nacaste	Nacaste	Guadalupe	Et Arbolillo	Santa Maria	Late Barranca
		900 -	Cunil			Jocotal				Bomba		Middle
EARLY		1000		Pac B	Cotorra	Cuadros	San Lorenzo B	Early La Venta	San	Manantial	Late	Barranca
HORIZON		1100 —		Pac A	Colorra	Cheria	San Lorenzo A		Jose	Ayotla	Ajalpan	Early Barranca
		1200 -				Ocos	Chicharras		· · · · · · · · · · · · · · · · · · ·	Coapexco	-	Late Amate
	EARLY FORMATIVE	1300 -		Ì		Locona	Bajio	Late Bari	Tierras Largas		Early Ajalpan	
		1400 —				Locona				Nevada	, , , , , , , , , , , , , , , , , , ,	Early Amate
	·	1500 —				Barra	Ojochi					
· .		1600 —						Early Bari				
		2000 -										1

Figure 1 (Cont'd). Chronological sequences for the Early to late Middle Formative periods in the central Maya Lowlands and other regions of Mesoamerica. All dates are uncalibrated.

Figure 2. Map of Mesoamerica showing Cahal Pech and other sites mentioned in text.

As a human agency model, inter-regional interaction involving symbols is particularly attractive in accounting for the foundation of socio-political inequality; in particular, notions of hereditary privilege. Simply put, communal groups, ambitious individuals, religious practitioners, or political upstarts may increase their status (and that of their offspring) at the local level with unusual politico-religious symbolism acquired though long-distance contact with other cultures (e.g., Flannery 1968; Helms 1979; Schortman and Urban 1987; Wells 1989). Whether esoteric or overt, the manner in which the symbols operated in the donor society may be emulated by individuals or groups within recipient communities to create or legitimize socio-political status

Unlike other models of socio-political evolution (e.g., population pressure and geographic circumscription) which require bounded conditions in order to occur, the emulation of symbols may be applied to small-scale societies. However, in order to test this model there are methodological and theoretical issues that cannot be avoided. For example, because it must be demonstrated that the symbols under study are differentially distributed in the archaeological record, a careful examination of primary and secondary contexts (Schiffer 1972, 1987; Hodder 1982; Wilson 1994) must be undertaken. If distribution is restricted to specific households, it may be possible theoretically to associate the acquired symbols with specific actors or social segments of the community and, thus, to Wobst's (1977) concept of information exchange and stylistic behaviour for status enhancement. Additionally, the successful incorporation of politically-charged symbols in the recipient community must be examined in light of antecedent conditions. Since potential resistance on the part of objectors—specifically, the fissioning of uncircumscribed communities—would undoubtedly act as a buffer against political upstarts, the overt purpose of the symbolism must be examined. Here, the merger of indigenous religious beliefs and acquired symbols, shamanic practices, and the benefits of participation by potential objectors (e.g., continued access to imported utilitarian goods) must all come under scrutiny. "Symbolic osmosis," or the possibility that symbolic behaviour manifests itself over time rather than immediately, may also be the case in some instances of inter-regional interaction involving symbols.

Of course, the above considerations require that the symbols under study were in fact acquired from an outside source. This is an especially contentious issue in Mesoamerica where the birthplace of the first widespread symbol system—carried by ceramic vessels, figurines, and other portable artifacts—is hotly debated. While some scholars (e.g., Bernal 1968; Clark 1997; Coe 1965, 1968a; Lowe 1989; Tolstoy 1989a)

credit the conception and spread of the Early Horizon style directly to an unrivalled Olmec "mother culture" of the Gulf Coast, others (e.g., Flannery and Marcus 1994; Grove 1989; Hammond 1988) reject Olmec hegemony, preferring a "sister cultures" model in which the Early Horizon style developed independently in each region from an earlier pan-Mesoamerican religious substrate. Temporal priority is not, however, an issue at Cahal Pech since the Intermediate Horizon style is present some 100-200 years after the initial appearance of the Early Horizon style in other regions of Mesoamerica, including the Gulf Coast. Nevertheless, many of the same issues are raised, including whether or not the symbols were locally inspired or acquired through contact with neighboring regions.

This study begins with a theoretical background of inter-regional interaction studies. Examples are introduced in which the emulation or importation of politico-religious symbols is argued to be a causal mechanism in increased socio-political inequality. Inter-regional interaction in early Mesoamerica is then discussed. Here, the Early Horizon style is examined, including what it consists of, when and where it appeared, and how it is currently interpreted. The temporal, contextual, and socio-political expectations of current interpretations are outlined. Cultural remains preceding 900 B.C. in the Maya Lowlands are then summarized, the Cunil phase settlement of Cahal Pech is introduced, and cultural affiliations of its initial inhabitants are sought through a comparative examination of local ceramic vessel forms and those of neighboring regions. To assess the extent of inter-regional interaction involving symbols, local pottery vessel motifs and figurine styles are described, quantified, contextualized, and compared with that of contemporary ceramic vessel motifs and figurine styles from other regions of Mesoamerica. Finally, Cahal Pech data are evaluated against the expectations of the "mother" and "sister cultures" perspectives. To meet theoretical expectations I propose a syncretic model which includes elements of both the Olmec and regional perspectives.

INTER-REGIONAL INTERACTION, SYMBOL EMULATION, AND SOCIO-POLITICAL EVOLUTION

The theoretical perspective of this research is structured to address the *acquisition*, *incorporation*, and *use* of pan-regional symbolism in creating and maintaining political inequality at the local level. Such a perspective requires what Hodder (1982:203) calls sensitive study of "the social strategies of individuals." Archaeologists studying the origins of socio-political complexity have increasingly turned to

such "agency" models, in which individuals acquire wealth, display it, and have others acknowledge their achievement. This approach is especially appealing where the onset of social and political inequality cannot be attributed to a circumscribed land base or endemic warfare (cf. Carniero 1967, 1970). In such cases, it is argued that the political actor achieves social and political promotion through such acts as bride exchange (Flannery 1968), feasting (Clark and Blake 1994), and the construction of public architecture (Fox 1996). Whether implicit or explicit, the agency approach is couched in the general psychological proposition that men with political aspirations are likely to take actions whose results they find rewarding (Homans 1967:363).

In egalitarian societies, opportunities for self promotion certainly resulted from contact with distant groups. That some form of "leadership" emerged in these circumstances is certain, since an individual (or individuals) was needed to represent the interests of the group. The creation of new social structures, as argued by Weber (1963), often depends on the efforts of such "charismatic" personalities. But who would come to the forefront in an egalitarian society lacking political authority? Since social ranking is absent—with the exception of age—few status distinctions are made in these societies. An exception to this, however, is the curer or shaman who enjoys a position of importance and limited influence as the community's conduit to the supernatural. Determining how shaman reconcile exotic concepts and symbols with local beliefs is of particular importance to this study. However, before addressing this problem it is appropriate that some of the terms used here be briefly defined.

Firth (1973:54) defines a symbol as "a concrete indication of abstract values." Within this obviously broad category are public and private symbols; the former being known and understood by all members of a given society; the latter understood by a small sub-set of individuals. Public symbols, despite their comprehension by all members of society, have "the power to regulate individual behaviour, to express personal sentiments, and to dictate forms in which private symbols present themselves" (Firth 1973:212). These "powers" can be intentional and recognized by participants (manifest) or completely unintentional—what Merton (1957:51) calls "latent." In either manner, a symbolic statement is preferable to a realistic statement because it is "capable of conveying more general and more profound meanings" (Firth 1973:41). Religious symbols are perhaps the most potent type of public symbol because they refer

to supernatural forces or entities recognized by all participants. According to Firth (1973:49; Spiro 1982:70), religious symbols are also affectively charged, non-neutral, and envisioned as possessing spontaneous powers. Thus, individuals may gain political prestige through close association with religious symbols. In egalitarian societies, religious symbols are manipulated by shamans who employ them as the major component in rituals (Turner 1969). Rituals, in turn, are repetitive activities that may amplify a symbolic penetration technique and, thus, the prestige of shaman (Laughlin et al. 1992:196)

Employing archaeological, ethnographic, and ethnohistoric case studies, Helms (1979) convincingly argues that shamans and chiefs will often import "esoteric knowledge"—mystical, mythical, and powerful supernatural concepts and symbols—from distant places in order to bolster their local status. In some cases, the acquisition of esoteric goods and knowledge is an important factor in social and political evolution. While it is conceivable that chiefs with *established* rank engage in such activity, exactly how politically charged symbols are incorporated in egalitarian societies is less certain. Clearly, this process must consider the preconditions for successful incorporation.

Pre-existing, community-wide knowledge of adopted symbolism may be necessary for subsequent political manipulation by individuals, especially when the political transition is the shift away from egalitarianism. In other words, if individuals are to create or increase social inequality by acquiring, associating themselves with, and thrusting politico-religious symbols upon communities, the symbols would probably need to be consistent with indigenous beliefs. If they were not, the threat of community fissioning would curtail the ambition of political upstarts attempting to ply completely "foreign" symbols for personal gain. In this regard, continuity is an important component of culture change since new forms of symbolic expression must be legitimized in terms of existing values (Parsons 1967:206-207; Barnett 1953:49, 54; Barkow 1994:130; Eisenstadt 1967:217-218; Firth 1973:216, 222, 238-239; Laughlin et al. 1992:177, 230). According to Parsons (1967:210), the focus of the change must be in the cultural system's religious aspects, which is only possible when the bearers of this change can "acquire a fundamental influence over the leadership elements." Since, in egalitarian societies, shamans occupy a limited leadership role—given their dominance in the supernatural realm—they are in a unique position to successfully syncretize adopted symbols with indigenous beliefs. Objectors, if present at all, would likely

defer to the new, manifest powers of the shaman, given familiarity with the referents of the symbols; group recognition of the syncretized symbolic order may also stifle the protests of competitive individuals (Firth 1973:77-78, 240; Eisenstadt 1967:228). The social and political status accrued by a shamans in this process may go unrecognized in the community until it is well entrenched.

Finally, as referents of supernatural beings or concepts, religious symbols are certainly a powerful means of influencing group behaviour. As noted by Firth (1973:91) religious symbols are "emphatic" in the sense that they may be manipulated for personal gain through repetitive rituals (Rappaport 1971a, 1971b). A social "distance" may be created through the ability to summon the power of supernaturals with religious symbols; those in control may attempt to dominate other spheres, re-organizing social principles based on personal objectives (Eisenstadt 1967:223). This has obvious status implications comparable to Wobst's (1977) conceptual link between stylistic behaviour and information exchange in the creation of social boundaries.

A classic archaeological example of this process in Mesoamerica is Flannery's (1968) contention that an economic and bride exchange network with the Gulf Coast Olmec enabled emerging elites in the Valley of Oaxaca to emulate the dress, customs, and religious paraphernalia of the neighbouring Olmec. In his argument, familial, religious, and economic relations may have solidified or bolstered the status of emerging elites. A somewhat similar process may explain the onset of social and political inequality in Highland Peru, in particular, the spread of religious symbols of the Chavin "cult" first recognized at the Early Horizon (c. 600-100 B.C.) site of Chavín de Huántar (Burger 1992:190-227). According to Burger (1992:196), "Chavín ideology appears to have been transmitted intact, without simplification or intended distortion," and "the replication of Chavín motifs on locally produced pottery... provides additional indication of the Chavín cult's successful penetration..." Burger (1992:202-203) also suggests that Chavín religious symbols would have "helped to validate its sacred propositions and the authority of its representatives," and that these individuals would have encouraged the adoption of Chavín symbols in order to "circumvent the long standing social conventions (i.e., egalitarianism) prohibiting the unequal appropriation of goods for personal gain."

Where historical and archaeological data have come together, there is also conformation of interregional interaction for political purposes. Although not involving religious symbols, the Roman writer Tacitus, for example, recorded the empire's frequent political "gifts" of silver, bronze, and glass vessels to numerous small communities beyond their frontiers (Wells 1992). These "fancy" vessels are frequently found in graves and settlements in northern Europe. Wells (1992:185-86) attributes their presence to the quest of individuals who sought status, wealth, and association with distant, powerful forces—a "Roman connection" of sorts.

Ethnohistoric accounts of contact between Polynesian cultures and Europeans also demonstrate the efforts of individuals to increase previously established social and political stature through association with "politically or spiritually powerful" imported goods such as clothing, food, and material possessions (Quanchi 1993:47, 51; Ralston 1993). European religious concepts and symbols also played a major role in this regard, and were often syncretized with local supernatural deities (Thornley 1993:77, 79-80). On Anuta Island, for example, the local ranking system was blended with principles of the newly established Christian church (Feinberg 1978). In at least some Pacific Island cultures egalitarianism was only breached after European contact. Thomas (1994:27), for example, notes that the shamans of small-scale egalitarian societies in the southern part of the Marquesas Islands were "deified," with special privileges, such as exclusive rights over certain foods, directly attributable to the control of foreign goods and knowledge. The use of Christianity to transcend the egalitarian ethic was also repeatedly recorded in the headwaters region of the Amazon River, where shamans occasionally "appropriated and reinterpreted elements of folk Catholicism for their own ends" (Hugh-Jones 1994:72-73). In this case, increased status was founded on the ability to read biblical texts.

INTER-REGIONAL INTERACTION IN EARLY MESOAMERICA: THE QUESTION OF OLMEC INFLUENCE

Inter-regional interaction certainly occurred throughout Middle America before the shift to settled village life. Although current evidence is limited to utilitarian goods such as obsidian (Nelson and Voorhies 1980), semi-sedentary groups probably imported and exported perishable goods and maintained periodic

contact with neighboring groups for purposes of mate selection (Wobst 1974). By about 1600-1500 B.C., with the shift to permanent villages, long-distance traffic in utilitarian goods such as obsidian increased (Clark 1994:269-271; Pires-Ferreira 1975). Whether this stimulated the transition to socio-political inequality is uncertain, though the fostering of long-distance trade and social alliances certainly provided politically ambitious individuals the opportunity to acquire exotic status goods at a later date.

An early example of interaction for political purposes has been suggested for villages located along the Pacific Coastal plain of southeastern Chiapas. In their quest for political prestige, Barra phase "aggrandizers" may have intensified factional competition by sponsoring elaborate feasts replete with fancy serving vessels (Clark 1994; Clark and Blake 1994). Though participation in such events may have been regional in scope, similarities between late Barra and Ojochi phase ceramics from the Gulf Coast site of San Lorenzo suggest that inter-regional contact also occurred during this time (Coe and Diehl 1980; Clark 1997:228; Blake et al. 1995:168; Lowe 1975:29). Evidently, factional competition during the late Barra phase contributed to the shift away from egalitarianism since, by the Locona phase, communities along the southeastern Pacific Coast were organized into a two-tiered settlement hierarchy with the largest sites, such as Paso de la Amada, approximately 50 ha in size. Moreover, exotic goods, such as jade, were imported for use by elites (Clark 1994:273; Blake et al. 1995:171), chiefly residences were constructed (Blake 1991; Lesure 1997), and public buildings—including a recently discovered ball court at Paso de la Amada (Hill et al. 1998)—were built. The socio-political complexity indicated by these data suggest that chiefdoms were fully developed by the middle of the Locona phase.

It is only with the early florescence of the Olmec culture about 1250-900 B.C., however, that the first large-scale chiefdom or state polity emerged in Mesoamerica. Lowe (1989:43-54) has dubbed this period the "Initial Olmec" Horizon after San Lorenzo, Veracruz, a remarkable plateau site located along a tributary of the Rio Coatzacoalcos approximately 40 km from the southern Gulf coast. Cultural remains at San Lorenzo include palace buildings, a subterranean stone drainage and water supply system, extensive residential terraces, and colossal stone monuments which were rafted or dragged from the Tuxtla Mountains (Coe 1968b; Coe and Diehl 1980; Velson and Clark 1975). Given the complexity of these remains, and the ability to marshal the labor necessary for their completion, some scholars (Bernal 1968;

Clark 1993, 1997; Coe 1968a; Diehl and Coe 1996) argue that San Lorenzo was the seat of a very complex chiefdom or an archaic state ruled by kings. Direct evidence that San Lorenzo engaged in interregional trade during the Initial Olmec Horizon includes the importation of obsidian, greenstone, ceramics, iron-ore mirrors from the Valley of Oaxaca, and tons of iron-ore cubes from central Chiapas (Agrinier 1984; Coe and Diehl 1980; Cyphers 1994; Lowe 1989; Pires-Ferreira 1975). The extent and strategic nature of long-distance trade is also demonstrated by elaborate "rope-bound transport box" stone monuments at the sites of San Lorenzo and Laguna de los Cerros (Coe and Diehl 1980:322; Lowe 1989:Figure 4.6q-r). Agrinier (1984) and Clark (1990, 1997; Clark and Blake 1989; Bernal 1968; Coe 1968a) suggest that San Lorenzo Olmec may have co-opted political authority in distant regions—even established colonies—in order to secure access to specific commodities and raw materials.

During the "Intermediate Olmec" or "La Venta" Horizon (c. 900-500 B.C.) the site of San Lorenzo experienced a decline in which colossal monuments ceased to be carved and platform construction was curtailed. Nonetheless, a remarkable florescence occurred some 80 km to the north-east at the site of La Venta. In addition to continuing the customs of colossal stone monuments and subterranean hydraulic engineering initiated at San Lorenzo, at La Venta massive offerings of basalt and serpentine slabs were cached, high status individuals were interred in elaborate tombs constructed of large basalt "logs," low-relief stela monuments became fashionable, and massive earthen buildings were constructed, including one of Mesoamerica's first large pyramid/plaza configurations (Drucker et al. 1959). Another custom intensified at the outset of the Intermediate Olmec Horizon was the use of jade as a ritual medium of expression; enormous caches of incised and plain jade celts, figurines, and other objects at La Venta hint that the increased use of jade may be linked to practices at this site.

The Olmec-Style: Definition and Geographic Distribution

The Olmec style has been described as both realistic and highly abstract with a tendency towards "curvilinear naturalism" (Coe 1965:747-751). Initial Olmec or Early Horizon colossal stone monuments from San Lorenzo are prime examples of Olmec style realistic portraiture, though some portable objects are quite

realistic as well. Notable are the highly distinctive adult and "baby-faced" ceramic figurines—both hollow and solid—with bald heads, slit-eyes, and snarling, down-turned mouths (Figure 12j-k). Other portable objects include ceramic vessels with excised or incised motifs, usually on their exteriors. Motifs range from anthropomorphic "were-jaguars" to abstract animal 'deities' such as "sky-dragons." The sky dragon is a particularly recurrent motif consisting of curvilinear fangs, trough-shaped eyes, flame-like eyebrows, and a wing-like "paw-wing" appendage or appendages. In general, the realistic, anthropomorphic, and animistic aspects of Olmec-style art suggest that it acted as a "governance" mechanism employed theocratic rulers (Clark 1997).

The subject matter and stylistic qualities of Early Horizon art continued into the Intermediate Horizon and, in some instances, became remarkably elaborate and labour-intensive. For example, although the production of Olmec style ceramic figurines was declining, they began to be replicated in jade. Other objects executed in the emerging media of jade were ceremonial celts, "ice-pick" perforators for bloodletting, and "spoons"—
resembling modern pharmaceutical counting-trays—possibly for the measuring and taking of hallucinogens.

Celts, in particular, were occasionally incised with complex anthropomorphic designs, even two-dimensional renderings of Olmec cosmology possibly conceptualized in three dimensions (Reilly 1990). While the incised designs on jade objects were extremely elaborate, designs on the surface of ceramic vessels became increasingly abstract. For instance, the were-jaguar motif may have became a "double-line-break" design in which parallel incised lines along the interior/exterior rims of bowls turn up or down at intervals forming opposing, short vertical lines—the cleft head of the were-jaguar or sky dragon (Flannery and Marcus 1994:140; Plog 1976:Figure 9.2).

Perhaps the most interesting—and certainly the most contentious—aspect of the Olmec style is the extent of its distribution beyond the Gulf Coast. During the Early Horizon, for example, "Olmec" style ceramic vessels and figurines were produced in central Mexico (Tolstoy 1989b), Oaxaca (Flannery 1968; Pyne 1976), Guerrerro (Martínez 1994; Paradis 1981), and Chiapas (Lowe 1989, 1994), among other regions. Other portable Olmec style objects (jade celts, figurines, masks, ice-picks, spoons) were used in these same regions and distant locations in lower Central America (Lange and Stone 1984) during the subsequent Intermediate Horizon. At some sites in Mesoamerica proper, non-portable Olmec style objects also appeared at this time.

Notable are the low-relief boulder carvings at the sites of Xoc, eastern Chiapas (Ekholm 1973), Pijijiapan on southeastern Pacific Coast of Chiapas (Navarrete 1974), Chalchuapa, El Salvador (Boggs 1950), and Chalcatzingo, Morelos (Grove and Angulo 1987). Stylistic and thematic similarities (e.g., regal portraiture, ceremonialism) between these carvings and counterparts from La Venta, Tabasco, suggest Olmec visitation, colonies, or local stylistic emulation.

Unlike many regions of Mesoamerica, Olmec style objects are rarely found in the central Maya Lowlands. As a result, studies of Olmec influence on the social and political development of this region tend to be indirect and latent in nature (Coe 1977; Joralemon 1981). Specifically, it is argued that Intermediate Horizon sculptural design, including iconography and low-relief, plano-convex carving, was adopted by the Izapan culture of the southeastern Pacific Coast (c. 400 B.C.-A.D. 100) which subsequently developed its own distinctive style. The Izapan style, in turn, was emulated by the lowland Maya who applied it to their earliest stone monuments (Cheetham n.d.; Hansen 1991). Aside from Cahal Pech, portable Olmec style objects from the central Maya Lowlands which are actually contemporary with the Intermediate Horizon are limited to six jade celts and an ice-pick perforator in a Real Xe phase cache at Seibal (Willey 1978), various artifacts of unknown provenience which may be heirlooms (Healy and Awe 1996), and "double-line-break" motifs on the rims of pottery vessels (Willey 1970: Figure 8a; Forsyth 1993: Figure 16).

Expanding the scope of inquiry to the southernmost reaches of the Maya Lowlands we see additional evidence of Olmec style objects during the transition from the Early to Middle Formative time-frame (c. 1000-800 B.C.). In addition to vessels with incised Olmec style motifs, Fash (1985, 1991) reports nine jade celts and jaguar claw effigy pendants in a Gordon phase burial at Copán, Honduras.² A date of 900-800 B.C. is suggested by vessel forms and the association of jade objects. Fash (1991:69-70) notes that specific ceramic vessel motifs are associated with burials in two separate platforms, perhaps serving as lineage badges as suggested for the distribution of ceramic motifs in Early Formative Oaxaca (Marcus 1989; Whalen 1981). Carved Olmec style ceramic vessel motifs contemporary with the Early Horizon have also been found in the lower Ulua-Chamelecón Valley of Honduras (Joyce 1996; Henderson and Joyce 1996), and Healy (1974; Gordon 1898) reports excised bowls and bottle-shaped forms from the

Cuyumel Caves of north-central Honduras. The bottle forms, in particular, are remarkably similar to some Bajio phase vessels from San Lorenzo, suggesting possible contact with (or the movement of) Olmec people before the Initial Olmec period (Healy 1984:129).

Olmec Cultural Influence and Socio-Political Evolution Beyond the Gulf Coast Olmec "Heartland": Current Perspectives and Expectations

As noted above, determining how Olmec style artifacts and motifs appeared and were used beyond the Gulf Coast region profoundly affects our understanding of early social and political development across Mesoamerica. Were the Olmec in fact a "mother culture" who initiated an advanced politicoreligious symbol system which was later transferred to those whom they came in contact with? Or, did "sister cultures" across Mesoamerica share a politico-religious foundation which moved them along convergent evolutionary paths toward similar symbolism? While at first glance polemic, these differing perspectives may help focus attention on alternative explanations for the appearance of the Early Horizon style, even models incorporating aspects of each. There is no reason, after all, why this phenomenon would not have varied in its intensity throughout Mesoamerica (Clark 1997). In any case, it is critical that the stylistic, temporal, and contextual expectations of perspectives be clearly presented in order to be applied and tested against particular case studies.

The premise of the "mother culture" perspective (Clark 1997) can be easily summarized. Briefly, the Early Horizon style was inspired by the Olmec peoples of the Gulf Coast, where it debuted about 1250 B.C. and rapidly spread to other regions of Mesoamerica by (a) coercive means such as colonization, proselytization, and possibly military campaigns, or (b) was voluntarily acquired and/or emulated by less complex cultures which were in direct contact with the Olmec through trade, political alliances, visitation, or Olmec exploration. In either case, Early Horizon style items are in fact Olmec in style and were readily distinguishable from local material culture (Tolstoy 1989b).

The temporal, stylistic, and contextual expectations of the mother culture model will vary according to the level of Olmec influence proposed. For example, in the "coercive" scenario the Olmec style would appear later than 1200 B.C. in the recipient region. Variation between the design and repertoire of local

pottery vessel motifs and those of the Gulf Coast would probably be slight, if detectable at all, since the desire on the part of the recipients would be the ritual and/or socio-political use of Olmec symbolism. This also applies to Olmec style figurines. In both cases, similarity is directly attributable to the importation of these objects from the Gulf Coast in addition to local imitations. As critics of this model point out (Flannery and Marcus 1994), the repertoire and overall style of ceramic vessel motifs would not vary greatly from region to region because a coercive scenario would necessitate only minor variations, if any, from prototypical Olmec symbolism. This is especially true if Olmec proselytizing or colonization was the principal means of transference.

With a "voluntary" scenario, the adoption of the Olmec style would likely represent a non-coercive choice on the part its recipients. If this desire was based on the ritual and socio-political use of Olmec symbolism for the creation or legitimization of inequality by emerging elites, Olmec style objects should appear in exclusive contexts in the archaeological record. The circulation of such objects would be controlled by a sub-set of the population; they would not be numerous. In fact, their production would be kept to a minimum. Prototypical ceramic vessels would probably be imported from the Gulf Coast. However, since there would be no obligation to do this, most would be made locally and exhibit a somewhat distinct style from counterparts of the Gulf Coast. As with ceramic vessels carrying motifs, Olmec style figurines (imports or copies) would probably appear in specific contexts and be less frequent than the local or regional style.

The "sister cultures" model stresses the origins of Mesoamerican cultures from a distinctively multiregional perspective. The emergence of the Early Horizon "Olmec" style (particularly design motifs on
ceramics) is explained as a regionally convergent process attributable to a pan-Mesoamerican religious
substrate or "shared belief system" pre-dating the actual appearance of symbolism on pottery (Grove
1989; Marcus 1989). It is further argued that this preceramic symbolism was transferred from perishable
media (gourds or wooden vessels) to pottery shortly after 1200 B.C. (Flannery and Marcus 1994:338).

Proponents of this model also stress that wherever Early Horizon style motifs appear, they are executed in
a local manner, and no one region possessed all the motifs. This, they suggest, is compelling evidence for
localized development and intensive, multi-directional trade between peer polities (Demarest 1989). The

Olmec are relegated to the position of one of many interacting cultures; they were no more complex than other participants.

Because the sister cultures model relies upon the basic proposition that Early Horizon motifs are the symbolic equivalents of a pre-existing pan-Mesoamerican belief system, its temporal, stylistic, spatial/contextual, and social-political expectations are difficult to test. However, some observations are readily apparent. In order to eliminate the *possibility* of Olmec influence, the symbolism of a given region must be as old, or older, than that of the Gulf Coast. If the Early Horizon style is, in fact, the symbolic extension of a pre-existing, pan-Mesoamerican belief system that was transferred from perishable to non-perishable media, then it should make its appearance *at the outset* of ceramic production. This clearly is not the case, since the medium of pottery was available for centuries prior to the appearance of incised motifs in many regions of Mesoamerica (Oaxaca, southeastern Pacific Coast, Gulf Coast, etc.). In short, an indigenous development perspective necessitates that (a) Early Horizon style symbolism would have appeared across Mesoamerica in a non-synchronic manner contemporary with the earliest ceramic complexes of regions and (b) would be stylistically dissimilar from region to region.

Any perspective accounting for the distribution of Early Horizon style objects must contend with the fact that these are not simple naturalistic depictions but highly abstract motifs. If a pan-Mesoamerican religious substrate existed, without inter-regional interaction identical abstract motifs in widely separated regions would be highly unlikely. According to the sister cultures perspective the symbolism developed in separate regions over a long period of time, including the Preceramic period. Should the animals being depicted in abstract form be indigenous to these differing regions? If they are not—and in some cases they clearly *are* not—this may be an important indication that concepts were borrowed, diffused, or emulated from regions where these animal are present. These concerns, however, are dismissable if one simultaneously advocates regional development/convergent evolution *and* inter-regional contact via an interaction sphere, as is currently argued by sister cultures advocates. Is indeed difficult to comprehend how these two theories could simultaneously operate.

In terms of frequency, the Early Horizon style ceramic vessels of a given region should, according to the sister cultures perspective, have been produced as frequently as they were in the Gulf Coast. By extension, Olmec style ceramic figurines outside the Gulf Coast should also be subject to the same conditions and would be stylistically distinct. In other words, unless Olmec style figurines were part of the shared belief system they would not appear in the archaeological record of non-Olmec sites unless directly acquired through exchange, or at least someone actually seeing these objects at Olmec sites and subsequently replicating them. If they are part of this belief system then they should appear as frequently as they do in the archaeological record of the Gulf Coast sites and be subject to the same conditions the sister-cultures model demands of ceramic motifs: stylistically dissimilar to those the Gulf Coast and other regions, and appear at the outset of figurine production.

The sister cultures perspective necessitates that the context and use of Early Horizon style objects would have varied greatly between regions because the impetus for extraregional contact—if, indeed, independent evolution and inter-regional interaction can be simultaneously argued—would have been the continued exchange of goods and raw materials, not symbolic emulation of an advanced culture's symbol system for political aggrandizement or other purposes. Put another way, because the shared belief system existed in egalitarian cultures for many centuries before 1200 B.C., and Early Horizon style symbolism was apparently part of this system, political upstarts would be subverting a local tradition. Concepts in the form of symbols would not be "introduced" because they already existed. Thus, where is the impetus for new representation? We would not expect a change in social and political behaviour in relation to pan-Mesoamerican symbolism simply because the only change occurring on the ground was a technological shift to new media; there was really nothing "new" to capitalize upon.

Discounting the profound difference attributed to symbolic primacy in these models for the moment, they are in agreement in one very important aspect: a chronological relationship exists between ceramics carrying symbolic motifs and the onset of social-political inequality in several regions of Mesoamerica. Indeed, the application of an "Early Horizon" style label to this phenomena (Willey 1991) demonstrates that Olmec style art, whatever its origins are and whatever it is called, was charged with religious *and* political meaning. For example, Marcus (1989) notes the use of motifs to distinguish between descent groups and residential areas within the Valley of Oaxaca. Here, a dramatic increase in site size, three-tiered settlement hierarchies, complex public architecture, elite households, and specialized production also

appear about 1150 B.C., replacing an earlier egalitarian cultural phase (Flannery and Marcus 1990). As noted above, even more grandiose developments have been described for this time period at the Gulf Coast Olmec site of San Lorenzo (Coe and Diehl 1980). The contemporaneity of these motifs with a varying corpus of other data indicates that Early Horizon symbolism emerged simultaneously with increasingly complex social and political structures, not with the emergence of pottery technology several centuries earlier.

EARLY OCCUPATION IN THE SOUTHERN MAYA LOWLANDS

Cultural Remains Preceding 900 B.C.

The southern Maya Lowland region includes the modern political boundaries of eastern Chiapas, Mexico, the Department of Petén, Guatemala, the southern Yucatán peninsula of Mexico, the entire country of Belize, and northwestern Honduras (Figure 2). Within this area are the central Maya Lowlands, a tropical sub-region located between the Ucumacinta River and its tributaries to the west and the Caribbean Sea to the east. During the Late Formative (350 B.C.- A.D. 250) and Classic (A.D. 250-900) periods extremely complex city states flourished in this sub-region which, at the height of the Classic period, was populated by an estimated 2.6-3.4 million people (Turner II 1990:310). Although these developments have been amply documented, their origins are poorly understood (Adams 1977). Especially obscure is our understanding of Maya culture before and during the shift to permanent village life about 900 B.C.

Occupation during the terminal Archaic period (c. 3000-2000 B.C.) is evident in northern Belize (Hester 1994; Jones 1994; Pohl et al. 1997; Shafer and Brewington 1994). Preliminary lithic and pollen data suggest forest clearing and the cultivation of manioc and maize in this area by at least 2500 B.C., conditions coinciding with earlier pollen studies from the central Petén lakes area (Cowgill and Hutchinson 1966) and Laminai, Belize (Pendergast 1977). Although precise linguistic affiliations are debatable, current data clearly indicate that by at least the beginning of the Early Formative period small, semi-sedentary bands (probably Maya speaking) occupied the central Maya Lowlands. MacNeish and Nelken-Terner (1983), for example, report riverine and coastal "hamlets" with seed-processing implements, suggesting semi-sedentarism and incipient agriculture at this time.

The first clear evidence of permanent village life, however, comes from the southernmost area of the region. Excavations at Copán, Honduras, uncovered the Rayo phase occupation—a single component site consisting of a domestic building platform, seed-processing implements, ceramic cooking and serving vessels, flint and obsidian tools, faunal remains, and ceramic figurine fragments (Fash 1991:66-67). Rayo phase pottery vessels lack incised motifs and differ from slightly later lowland ceramic forms; similarities are noted with Maya highland and Pacific Coastal assemblages (Fash 1985), specifically, Locona phase pottery from the southeastern Pacific Coast (John Clark, personal communication 1997). The earliest pottery from Copán, therefore, suggests inter-regional interaction with, or possibly the movement of, Mixe-Zoque people from the Pacific Coast, just as pottery from Honduran caves (Healy 1974) suggest ties with another group of Mixe-Zoque speakers—the Gulf Coast Olmec.

Cunil phase (1000-800 B.C.) Cahal Pech: Cultural Setting

Today, the ruins of central Cahal Pech consist of some 34 civic-ceremonial and residential buildings compacted on an acropolis approximately 3 km from the confluence of the Macal, Mopan, and Belize Rivers in the upper Belize Valley. During the Cunil phase Cahal Pech was a small village or hamlet covering an estimated .75 ha of a secondary hilltop centrally located along a 1 km east-west trending ridge 165 metres above sea level. Cunil phase artifacts have been recovered from this hilltop (below Plaza B of the later acropolis) in stratigraphic context, including architectural fill. Although Cunil phase architecture has not been found beyond this location, contemporary pottery vessel and ceramic figurine fragments from subsequent early Kanluk phase deposits of several hilltop settlement clusters (within 2 km) indicate additional settlement at this early date. Architecture at these locations probably consisted of "bush huts" built directly on ground level. Based on site core excavations and the distribution of artifacts, I (Cheetham 1996:20, 29-30) have estimated a minimal population of 75-150 persons for the entire community. Other sites in the Belize Valley currently lack stratified deposits of similar antiquity, but Cunil phase sherds from mixed basal deposits at Pacbitun and Blackman Eddy (Terry Powis, personal communication 1997) suggest that other communities were established before 800 B.C.

Excavations in Plaza B of the Cahal Pech site core exposed four Cunil phase household areas, three of which are sequences of low domestic platforms of tamped earth, marl, or flattened stones built to support unpainted pole-and-thatch superstructures (Figure 3b). Associated artifacts include seedprocessing implements, small jade beads, conch shell disc-beads, small chert drills, obsidian flakes, pottery sherds, and ceramic figurine fragments. These building platforms are located in an area which was levelled and raised about 650 B.C. in order to create Plaza B. In contrast, lime-plaster building platforms are present below a temple building (Structure B-IV) at the south-east corner of Plaza B. Here, excavations exposed 8 metres of stratigraphy—a sequence of 14 construction phases spanning the entire occupation of Cahal Pech (1000 B.C. - A.D. 900). The earliest building platforms in this sequence (14-sub through 10ac) are dated to the Cunil phase by radiocarbon dates (Table 1 and Figure 4) and the analysis of associated ceramics (Cheetham and Awe 1996). Curil pottery differs both formally and technically from early Jenny Creek phase ceramics at the nearby site of Barton Ramie (Gifford 1965; Sharer and Kirkpatrick 1976), to which they are a precursor. Ceramics contemporary with the early Jenny Creek phase first appear in architectural phase 9-sub of Structure B-IV (Beta 40864 [770±60 B.C.]), continuing through 4-sub (c. 350 B.C.). Radiocarbon and obsidian hydration dates confirm this latter portion of the architectural sequence (Awe and Healy 1994:196).

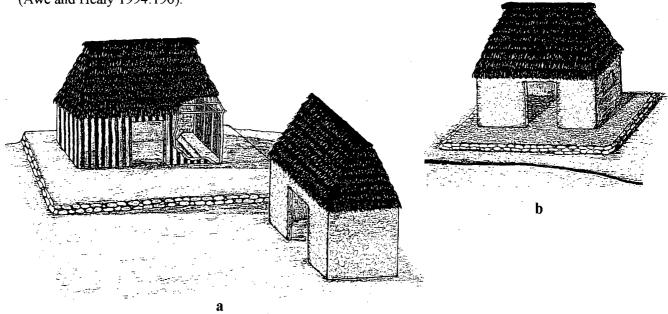


Figure 3. Reconstruction drawing of Cunil phase buildings, Cahal Pech, Belize: a) Structure B-IV 10a-sub and ancillary building 1; b) Structure U11-1.

The most elaborate example of Cunil phase architecture (Structure B-IV 10a-sub) is also the final Cunil phase building in the Structure B-IV sequence. Two buildings were present in the vicinity of B-IV at this time (Figure 3a). 10a-sub consisted of a lime-plastered pole-and-thatch building set on a 20 cm high lime-plastered platform with the door side (or long axis) oriented slightly west of magnetic north. The interior floor of this building, which is also lime-plastered, is 20 cm lower than the platform on which the building sat. A 65 cm wide lime-plastered "bench" abuts the east interior wall; a similar bench probably borders the west interior wall as well. The exterior walls of the 10a-sub structure were decorated "barber-pole" style with vertical bands of dull red paint remarkably similar to the red slip of Cunil phase serving vessels. A large section of a carbonized upright post was recovered in a stratum of ash covering this building platform. A radiocarbon date from this post (Beta 40865 [790 ± 70 B.P.]) provides the estimated upper Cunil phase boundary and is testimony to the intentional or accidental burning of 10a-sub about 800 B.C.

Table 1. C	unil phase	radiocarbon dat	tes from Structure B-IV			*
r 1 .	C 1			Radiocarbor	n Age	0 III + 1D +-
Laboratory Number	Sample Type	Provenience	Context	B.P.	B.C.	Calibrated Date (1-sigma)
Beta 40864	charcoal	Str. B 4, 9-sub	Unit 4 (below floor)	2720 ± 60	770	970-816 B.C.
Beta-40865	charcoal	Str. B-4, 10a-sub	Unit 4 (post, on floor)	2740 ± 70	790	999-827 B.C.
Beta-77205	charcoal	Str. B-4, 10c-sub	PlazaU-94-1 (below floor)	2800 ± 50	850	1000-890 B.C.
Beta-56765	charcoal	Str. B-4, 11-sub	Unit 5, (below floor)	2730 + 140	780	1070-800 B.C.
Beta-77204	charcoal	Str. B-4, 11-sub	PlazaU-94-1 (below floor)	2710 ± 120	760	980- 7 95 B.C.
Beta-77207	charcoal	Str. B-4, 13-sub	Unit 5 (below floor)	2930 + 50	980	1200-1020 B.C.

^{*}After Healy and Awe (1995: Table 2), and Awe (1992: Table 1).

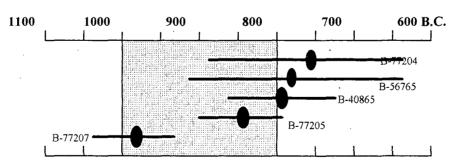


Figure 4. Radiocarbon dates and phase-boundary estimates for the Cunil phase.

The preceding two buildings of the B-IV sequence (10b and c) are earlier versions of 10a. Both buildings used the same platform and interior bench, had lime-plaster exterior walls (though not painted),

and were oriented slightly west of north. The principal difference between these construction phases and 10a-sub is the fact that each episode involved a different pole-and-thatch superstructure and the interior floors were recessed to a greater depth. For example, at the time of 10c-sub the interior bench was .50 m high. Numerous artifacts were scattered on the floor alongside this bench, including smashed pottery vessels with incised Intermediate Horizon style motifs, three jade artifacts (two of which were part of an "avian-serpent" mosaic), numerous conch shell disc-beads, obsidian flakes, a rectangular slate plaque, and several hundred animal bone fragments. These objects either gradually accumulated on the building floor prior to rebuilding or were deliberately cached. In either case, their presence is not surprising considering that at Cahal Pech Intermediate Horizon motifs are exclusively found on the platform surfaces, patio floors, and construction fill of early B-IV architecture, including the first four building platforms (11-sub through 14-sub). An uncorrected radiocarbon determination (Beta-77207 [980 ± 50 B.C.]) from charcoal in the construction fill of the second platform (13-sub) provides the lower Cunil phase boundary estimate of 1000 B.C.

The three domestic locations, despite the absence of Intermediate Horizon style artifacts, engaged in the limited production of some exotic items and foodstuffs during the Cunil phase. Current data indicate that this production, though neither intensive or specialized, did not occur at Structure B-IV. For example, small chert drills used to work imported conch shell into small disc-beads, among other tasks, were frequently encountered in and around these domestic platforms. Disc-beads were also found at these locations and, as noted above, at Structure B-IV where chert drills are lacking. In addition, indirect data suggest that the preparation of maize only occurred at domestic units. Deposits above and within these platforms yielded quartzite *mano* and *metate* fragments, whereas seed-processing implements are not present at Structure B-IV. The only direct evidence of maize agriculture, however, is a *Zea mays* cupule fragment from the interior floor of Structure B-IV 10c-sub (Lawlor et al. 1995:158). Numerous carbonized gourd fragments—presumably used for fuel—were also found on and below all early Structure B-IV floors (Lawlor et al. 1995), suggesting that cooking frequently occurred within these buildings.

Hunting and gathering were also customary modes of subsistence during the Cunil phase. For example, freshwater snail (*Pachychilus glaphyrus*, *Pachychilus indiorum*) and bivalve shells (*Nephronaias*

ortmanni) were found throughout the site. In addition, Stanchly (1992:Table 3) has identified fish, crab, crocodile, currasow, deer, dog, opossum, rabbit, armadillo, peccary, and squirrel remains from the early Structure B-IV deposits. The bones of some species (turtle, fish, bird, dog, crocodile, and peccary) were modified into pendants and possibly masks, suggesting the ceremonial use of fauna (Stanchly 1992:388). The concentration of deer hind limb bones and other faunal resources at Structure B-IV suggests differential access to choice cuts of meat (Awe 1994:16-18) and quite possibly the preparation of foodstuffs for purposes of feasting (Cheetham 1996:25). Although animals were probably prepared and consumed at other locations, current data do not indicate that this was the case.

Pottery and Cultural Affiliations

The earliest permanent settlements of the central Maya Lowlands appeared rather "suddenly," produced relatively sophisticated pottery, and were bordered by several regions where village life and pottery production had existed for several centuries. Accordingly, and because ceramic analyses are unable to demonstrate close affinity with a particular extra-regional assemblage, it has been argued that multiple migrations of people from several regions colonized a relatively vacant central Maya Lowland area about 900 B.C. (Andrews 1990:16; Sabloff 1975:10, 230; Willey 1977a:136; 1977b:400-401).

Until recently, Xe and Real Xe phase pottery from Altar de Sacrificios (Adams 1971) and Seibal (Willey 1970) represented the earliest ceramics of the central Maya Lowlands and the material with which the origins question was addressed. Willey (1970:355, 1973:25-26) and others (Andrews 1990:16; Lowe 1977:266) tentatively linked Xe ceramics with Cotorra/Dili phase material from the Central Depression of Chiapas and Xox phase pottery from the northern Guatemala Highlands. In the absence of an explicit, precursive extra-regional ceramic assemblage Adams (1971:154, in Willey [1973:26]; Lowe 1977:198) favored the Gulf Coast Lowlands as the most likely origin area for the Xe people since this region had "plants and techniques of cultivation...already adapted to the lowlands." Such an ecological approach—without an origin area—is also suggested by Puleston and Puleston (1971) who, like Adams, note that the earliest villages occur along rivers. At the Belize Valley site of Barton Ramie, Sharer and Gifford (1970:446-454; Sharer 1978:17) proposed an evolutionary link between early Jenney Creek phase Jocote

Group pottery and slightly earlier counterparts from Chalchuapa, El Salvador, thus providing a possible source of colonists. Current data indicate that the Belize Valley was inhabited some 200 years earlier than was known at the time of Sharer and Gifford's study; their hypothesis can now be rejected.³ In general, Xe, early Jenny Creek, and other early Middle Formative ceramic complexes are more closely related to Cunil pottery—indeed, even to each other and subsequent late Middle Formative pottery—than to any contemporary or antecedent assemblage of a neighboring region. In the absence of a derivative relationship with an outside region the "vacant area" theory should be considered suspect.

Since the Cunil ceramic complex predates Xe-related early Jenny Creek pottery, it currently represents the earliest ceramic complex from the sub-region and is the most logical candidate for comparative analysis with ceramic assemblages of neighboring regions. Not only is such an analysis of interest to the student of Maya prehistory, it is a critical first step in the modelling necessary to assess symbolic inter-regional interaction. In other words, did Intermediate Horizon style symbolism arrive with ceramic producing colonists from a neighbouring region, or regions, or was it adopted or developed by an indigenous population who simultaneously adopted ceramic technology? If, for example, the Belize Valley was colonized by immigrants we would expect the complement of local vessel forms to be very similar, if not identical, to those of an extra-regional ceramic assemblage (or assemblages) dated at, or just prior to the founding of Cahal Pech (c. 1050-950 B.C.). Alternatively, if local populations acquired ideas about ceramic technology from non-local peoples, we would expect distinctive vessel forms, some of which may be reflected in the ceramic assemblages of other regions. Formal similarities, though present, would not be comprehensive and would be confined to the co-occurrence of minor or "eccentric" traits (see Lowe 1977:212).

Cunil phase ceramics are described by Cheetham and Awe (1996) who classify the complex by type:variety analysis (Gifford 1976:1-20; Smith et al. 1960). Two wares are present: a Carbonate Paste Ware comprised of two ceramic groups of large storage and cooking jars and, less frequently, large bowls; and an Ash Paste Ware comprising five groups of serving vessels. Relative to slightly later ceramic complexes, the most conspicuous feature of Cunil phase ceramics is vessel form (Figure 5). Cooking and



Figure 5. Reconstruction drawing of Cunil phase ceramic vessels from Cahal Pech, Belize.

storage vessel forms (comprising 70% of the total assemblage) include neckless jars (*tecomates*) with interior bolstered rims but are dominated by jars with low, vertical necks and wide, vertical strap-handles attached to their shoulders. The appliqué filleting common on early Jenny Creek phase jars (see, e.g., Sharer and Kirkpatrick 1976:Figure 18) is absent, and outcurved necks are extremely rare. Some 13 percent of jars have a dull brown-back slip which has a dark purplish hue, and a few perforated body sherds indicate that some unslipped jars functioned as colanders.

Serving vessels (30% of assemblage) include flat-bottom bowls, dishes, and plates with outsloping, outcurved, incurved, and, less frequently, vertical sides. Rare forms include small gutter-spouted cups with outcurved or vertical sides, saucers, vessels with short, solid legs, and narrow vases. The tubular-spouted vessels common in subsequent complexes (see, e.g., Forsyth 1993:Figure 8a; Sharer and Kirkpatrick 1976:Figure 26b-e) are lacking. The most eccentric form of serving vessel is the flat-bottom, outsloping-sided dish/plate with a wide, horizontally-everted and incised rim. This form appears in the latter half of the Cunil phase, in Real Xe deposits at Seibal (Willey 1970:Figure 24n-p), early Eb at Tikal (Culbert 1985:Figure 9[40-44, 55]), early Mamom at Uaxactun (Ricketson 1937:Figure 159a-c, e-g), and early Ah Pam in the Yaxha-Sacnab lakes area (Rice 1979:Figures 4cc-dd and 5a,c), suggesting phase overlap and cultural contact (c. 850-800 B.C.) among these centers. Cunil potters decorated the majority of their

serving vessels with red slips, although black and cream slips were occasionally used, and bichrome slipping also occurs on a few dishes/plates with horizontally-everted rims. Most slips are dull, unevenly coloured, and erode very easily to the touch. However, where firing temperature was extremely high slips are very durable and variable in surface colour. Aside from slipping, the most popular decorative measure was post-slip, post-fire, fine-line incision which produced distinctively thin, "jagged" lines. The carving or excision of vessel surfaces is rare, but present. The paste composition of all incised vessels, being identical to non-incised specimens, indicates local production. The only pottery that does not correspond to the two ware categories includes a human effigy vessel fragment and two figurine fragments of very fine kaolin clay which may have been imported.

Table 2 summarizes the presence/absence of Cunil phase vessel forms in the ceramic assemblages of neighboring regions at the beginning of the Cunil phase. Lacking or extremely rare are jars with low, vertical necks, colanders, and wide strap-handles. To argue convincingly for colonization, these attributes should appear *together* since an established tradition of utilitarian jar production should not radically change when people move to a new region. The probability of this combination resulting from the amalgamation of pottery traditions of several regions is also slim, considering that these attributes are extremely rare or absent in extra-regional assemblages. Where such a combination is possible (attributes of the western El Salvador [Tok] and northern Guatemala highland [Xox] assemblages, Table 2), other attributes and forms not present at Cahal Pech—including the extensive use of fingernail impressions, appliqué fillets, and the popularity of *tecomates*—make this scenario unlikely. Finally, the inability to identify external assemblages with Cunil phase jar *and* eccentric forms, such as wide everted-rim dishes/plates and colander jars, further reduces the probability of colonization.

A "vacant area" scenario now seems unlikely given the mounting body of Archaic Period data and the inability to locate clear antecedents of Cunil, Xe, and other early ceramic complex forms in extra-regional assemblages. In eliminating immigration as the explanation for the earliest settlements, it would appear that indigenous preceramic populations (probably of Maya speech) acquired *ideas* about ceramics from neighbouring regions about 1100-900 B.C.—a scenario now also favored by Gordon Willey (personal communication 1992). This knowledge enabled the rapid development of distinctive pottery complexes

such as Cunil and, at a slightly later date, Xe. At Cahal Pech, the importation of exotic materials by 1000 B.C. demonstrates that, far from being insular, this small group of indigenous central lowlanders maintained regular contact with cultures from neighboring regions.

Table 2. Cunil phase vessel forms/attributes: presence/absence in non-local ceramic assemblages c. 1050-950 B.C.*

			Chiapas	Southestern	Western	N. Guatemala
	Cahal Pech	Gulf Coast	Central Depression	Pacific Coast	El Salvador	Highlands
Jars						
tecomate	X	X	X	X	X	X
low, vertical neck jar	X	x	X	x	X	x
low, outcurved neck jar	x		X	x	X	X
colander	X					
Serving Vessels						
bowl, outsloping/outcurved sides	X	, X	X	X	X	X
bowl, incurved sides	X	X		X	X	X
bowl, vertical sides	x	X	X	X	X	x
dish/plate, outsloping/outcurved	X	X	· X	X	X	X
dish/plate, outsloping sides,						
horizontally everted rim [wide]	X	x	x [narrow]	x§	х [паптоw]	
Miscellaneous Forms						
cup [gutter spout], outcurved sides	X				x? ·	
cup [small], vertical sides	· x	X		x?		
narrow vase, vertical sides	X					
saucer/small plate	x					
Decorative and Functional						
Attributes						
wide strap-handles [jar shoulders]	X					x
appliqué filleting [jars & bowls]	x		X	· X	X	X
post-slip excising	x	X	X†	X	X	x
post-slip fine-line incising	X	X	X†	X		Х
leg supports, short, solid	x					
human effigy bowls	x [imported?]			x		

^{*} Symbols: X, major form/attribute; X, minor form/attribute; x, rare form/attribute. Extra-regional forms [Gulf Coast] after Coe and Diehl 1980:159-187); central Chiapas (Dixon 1959:4-19; Green and Lowe 1967:43-47; Navarrete 1960:23-25; Sanders 1961:17-20; Agrinier 1984:38-64); southeastern Pacific Coast (Blake et al. 1995:173-177; Coe 1961:48-60; Coe and Flannery 1967:25-40; Ekholm 1969:25-50; Green and Lowe 1967:104-112); western El Salvador (Sharer 1978:80-91); northern Guatemala Highlands (Sharer and Sedat 1978: 272-278, 305).

CUNIL PHASE INCISED CERAMIC MOTIFS AND FIGURINES: EXAMINING STYLE AND CONTEXT ON AN INTER-REGIONAL LEVEL

The following section examines the style of Cunil phase ceramic vessels motifs and human figurines and compares them with those of other Mesoamerican regions using an illustrative/descriptive approach.

These artifact classes are selected for comparison since, during this period, they are the principal means of displaying the Intermediate Horizon style across Mesoamerica and arguably the most sensitive indicator of

⁸ Very rare

[†] Infrequent, with the exception of Calzadas Carved and Limón Carved-Incised types at Mirador (Agrinier 1984:58-64; see also Lowe 1981:234-240), which are indistinguishable from their namesakes at San Lorenzo (Coe and Diehl 1980:162-174).

inter-regional interaction. Sites/regions were selected for comparison based on the presence of the Intermediate Horizon style and the availability of data in the form of illustrations.

Unfortunately, the quantification of specific, extra-regional figurine attributes and ceramic motifs is problematic because they are seldom, if ever, quantified in the archaeological literature. Ideally, quantified stylistic data (design attributes, whole motifs) of extra-regional collections would be tabulated and compared to Cahal Pech. In the absence of these data, I chart specific motifs and design attributes at Cahal Pech, following the format of Plog (1976:Figures 9.2, 9.3). These motifs and design attributes are described and compared with counterparts from other sites/regions, which are presented on the same chart for convenience. Assessments of similarity are presented, based on comparison of specific design attributes and/or whole motifs. Where Cahal Pech motifs or design attributes are absent in a given region, it is noted on the appropriate chart. Using this approach, similarities and/or dissimilarities are examined in order to assess the likelihood of symbol emulation and test the models accounting for the appearance of the Intermediate Horizon style.

The social context in which Intermediate Horizon style objects were used at Cahal Pech is also considered. In particular, spatial distribution is used to link politico-religious symbolism and the behaviour of political actors. Where present, similar, extra-regional examples of social context are introduced and compared with Cahal Pech to support this theoretical position.

Incised Ceramic Vessels

Because incised designs occur on different coloured Cunil phase vessels—in essence, a distinctive analytical category or attribute cross-cutting all ceramic groups—a sub-complex, called Chitam (Yucatec Maya for "peccary"), has been suggested for all incised pottery (Awe 1992; Cheetham and Awe 1996). The Chitam sub-complex (Table 3) includes 85 sherds from five ceramic groups. Vessel forms are dominated by serving vessels (comprising 91% of the sub-complex assemblage); dishes and plates with wide-everted rims, bowls and dishes with incurved, outcurved, and outsloping sides, and small *tecomates*. Although infrequent, incised designs were also noted on three large, unslipped cooking and storage jars (comprising 4%). Carved/excised specimens, though limited to three serving vessels and one roller-stamp,

Table 3. Classification of Cunil-phase Chitam sub-complex pottery, Cahal Pech, Belize.

ТҮРЕ	VARIETY	# OF SHERDS %	OF SUB-COMPLEX
CHITAM INCISED CHITAM INCISED	: ZONED VARIETY : ZONED-BICHROME VARIETY	=	
CHITAM INCISED	: VARIETIES UNSPECIFIED	8,	88.2
CHI BLACK: INCI	SED VARIETY	3	3.5
COCOYOL CREAL	M: COCOYOL VARIETY	2	2.4
CU ORANGE: VAI	RIETY UNSPECIFIED	1	1.2
		2 2	4.7
	CHITAM INCISED CHITAM INCISED CHITAM INCISED CHITAM INCISED CHITAM INCISED CHI BLACK: INCISED COCOYOL CREAT CU ORANGE: VAI	CHITAM INCISED: CHITAM VARIETY CHITAM INCISED: ZONED VARIETY	CHITAM INCISED: CHITAM VARIETY 58 CHITAM INCISED: ZONED VARIETY 7 CHITAM INCISED: ZONED-BICHROME VARIETY 2 CHITAM INCISED: VARIETIES UNSPECIFIED 8, CHI BLACK: INCISED VARIETY 3 COCOYOL CREAM: COCOYOL VARIETY 2 CU ORANGE: VARIETY UNSPECIFIED 1 SIKIYA UNSLIPPED: VARIETY UNSPECIFIED 2

are also included in the Chitam sub-complex given the rarity of this kind of decoration (comprising 5%).

The Chitam sub-complex includes local, Intermediate Horizon style, and unidentifiable designs (Table 4). The local design category (50.5%) includes simple linear or curvilinear designs (e.g., rim encircling incisions) composed of one or, occasionally, two "design attributes" (Figure 6). As used here, a design attribute refers to a minimal unit of expression which alone or in combination with another design attribute forms the overall design. The simplicity of the local designs indicates that independent inspiration is likely.

Table 4. Distribution of Chitam sub-complex Intermediate Horizon and local designs, Cahal Pech, Belize.

	INTERMEDIATE HORIZON STYLE (Chitam sub-complex)				LOCAL		UNIDENTIFIED		
ceramic group	lightning	avian- serpent	kan-cross	were- jaguar	motif l l	linear	curvilinear		TOTALS
Uck (red)	1	7	1	1	1	30	9	25	75
Chi (black)	. -	2		-	-	1	-	-	3
Cocoyol (cream)	-	-	-	-	-	1	-	1	2
Cu (orange)	-	-	•	-	-	1 .	-	-	. 1
Sikiya (unslipped)	-	2	1	-	-	ì		~	4
TOTALS	1	11	2	1	1	34	9	26	85

Local Designs

Specific designs of the local category include rim encircling incisions, sometimes with attached perpendicular lines or downturned open squares (Figure 6a-f), and lines extending from rims lacking

encircling incisions (Figure 6g). In one case linear and curvilinear design attributes are combined to form a rectangle containing small circles (Figure 6q). Other specimens of the local category, although also uncomplicated, may not be confined to Cahal Pech. For example, the curvilinear pendant design (Figure 6o) is very similar to a Real Xe phase specimen from Seibal (Willey 1970:Figure 7e), a Jocotal phase specimen from the southeastern Pacific Coast site of Altamira (Green and Lowe 1967:Figure 90c), and a Cotorra phase sherd from the site of Chiapa de Corzo in the Middle Grijalva Basin (Dixon 1959:Figure 27a). The "closed-rectangle-and-line" (Figure 6h) may also be an early regional variant of the pan-Mesoamerican double-line-break motif.

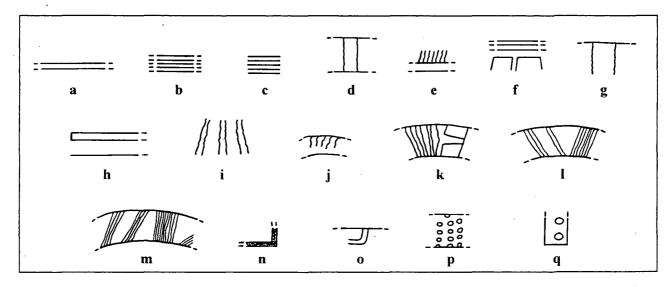


Figure 6. Local designs of the Cunil phase Chitam sub-complex, Cahal Pech, Belize: (a-n) linear; (o-p) curvilinear; (q) linear/curvilinear.

Other local designs that may be shared with other Mesoamerican regions includes reed-impressed vessels exteriors (see Figure 6p), which are present in the Cotorra phase assemblage at Chiapa de Corzo (Dixon 1959:Figure 11d). Although speculative, several local category specimens may be depictions of lightning (Figure 6i-m). Curiously, the lines of two of these specimens (Figure 6i-j) were purposely executed in a "wavy" manner somewhat reminiscent of the lightning motif of the Intermediate Horizon style category (see below). The three other specimens (Figure 6k-m) may also represent groups of lightning, though again, this interpretation is speculative at present. Interestingly, identical groups of incised lines are present on the exterior of Nacaste phase serving vessels at San Lorenzo (Coe and Diehl

1980: Figures 164k-l, 169p-q), suggesting that this sort of design refers to an idea or concept which was shared by more than one region. Although it is uncertain, the carved/excised design (Figure 6n) may represent a small section of an avian-serpent eye (see below).

Intermediate Horizon Style Motifs

The Intermediate Horizon style category (19% of sub-complex) is restricted to readily identifiable, free-standing, holistic or single attribute motifs which appear in several regions of Mesoamerica. The Cahal Pech repertoire (Figure 7a-j) includes "avian-serpents," lightning, the "kan-cross," the cleft-head attribute of a "were-jaguar," and its other stylized version known simply as "motif 11." These motifs are either zoned (framed by additional incisions) when consisting of a single design attribute or, in the case of several attributes, combined to form a holistic motif. The only non-ceramic specimen included in this category is a jade "flame eyebrow" and fang (Figure 7j) which were part of an elaborate avian-serpent mosaic.

These motifs have also been found at other sites in the southern Maya Lowlands. For example, the Gordon ceramic complex of Copán includes pottery vessels with avian-serpent flame eyebrow, bracketed eye, and paw wing attributes (Figure 7k-m). On another vessel, kan-crosses are combined with an X-shaped St. Andrews cross (Figure 7n), while still another displays a cleft element resembling that of the were-jaguar (Figure 7o). Additional examples of these motifs, including an avian-serpent on a vessel from the Cuyamel Caves (Figure 7p) and St. Andrews and kan-crosses in the Ulua Valley (Joyce 1996), indicate that Olmec style symbolism was quite popular in western Honduras at approximately the same time as Cahal Pech. Closer to Cahal Pech, remarkably similar motif 11 were-jaguar symbols were incised on wide, everted rim vessels recovered from early Mamom phase deposits at Uaxactun (Figure 7q). In addition to sharing this motif, the presence of this vessel form at both Uaxactun and Cahal Pech suggests that Uaxactun was settled toward the end of the Cunil phase. Finally, a possible cleft-head were-jaguar depiction and a kan-cross are present on the earliest pottery from Tikal and the lakes Yaxha-Sacnab area (Figure 7r-s), respectively. These specimens are probably contemporary with the Uaxactun motif 11 specimens and the latter half of the Cunil phase.

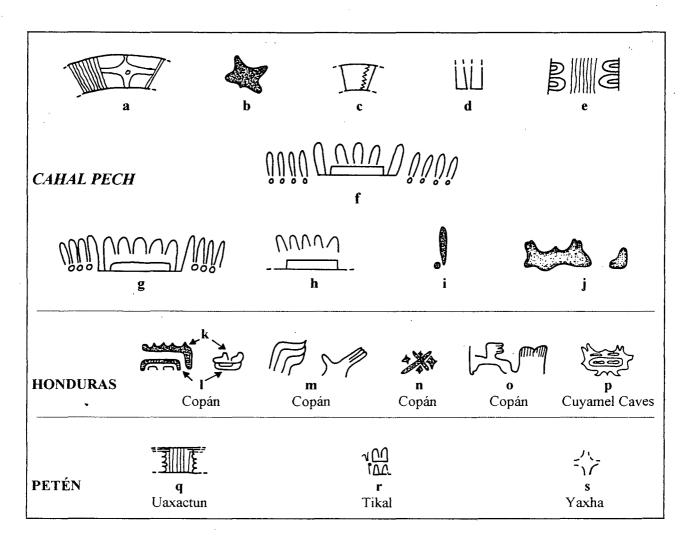


Figure 7. Intermediate Horizon style motifs of the Cunil phase Chitam sub-complex and other southern Maya lowland sites: (a-b) kan-cross; (c) lightning bolt; (d) were-jaguar cleft-head attribute; (e) motif 11; (f-j) avian-serpent; (k-o) avian-serpent flame eyebrows [k], bracketed eyes [l], paw-wings [m], kan-crosses [n], and were jaguar cleft-head attributes [o] (after Fash 1985:Figura 2; 1991:Figure 33); (p) avian-serpent frontal view (after Healy 1974:Figure 4e); (q) motif 11 (after Ricketson 1937:Figure 249c); (r) cleft-head attribute (after Culbert 1985); (s) kan-cross (after Rice 1979:Figure 4dd).

The distribution of these motifs is even wider when other regions of Mesoamerica are taken into account. Indeed, the Cahal Pech motifs are similar or identical to counterparts in several other regions of Mesoamerica with contemporary occupation. Since the analysis of vessel forms eliminates migration from another region, and all vessels carrying Intermediate Horizon motifs were produced with the same clay/temper combination used for other Cunil phase vessels, the potters that produced these designs were local villagers who adopted this symbolism and/or were expressing indigenous beliefs.

Avian-Serpent. If the frequency of motifs at Cahal Pech is any indication, the most prevalent concept was the avian-serpent. This motif was incised on the exterior of monochrome plates, dishes, bowls, and large unslipped storage jars. As noted above, two pieces of a carved jade avian-serpent mosaic were also recovered, though this mosaic may have been imported in a finished state. The avian-serpent, with its flame eyebrows and trough-shaped eyes, is one of the most frequently encountered motifs in Mesoamerica at this time. In an early study of Olmec iconography, Joralemon (1971; Covarrubias 1957) identified it as a serpent-like jaguar-dragon or caiman-dragon "deity" given its emphasis on flame eyebrows and paw wings. Another name commonly applied to this motif is "fire-serpent" (Coe 1968a:114). In a recent paper Taube (1995:84-86, Figure 4) convincingly argues that the creature actually represents a sky-dwelling "avian-serpent" associated with rain. According to this interpretation the flame eyebrows of the creature represent the scales projecting above the eyes of the arboreal fer-de-lance palm-viper (Bothriechis schlegelii)—a deadly poisonous species indigenous to the Gulf Coast Lowlands and other tropical regions of Mesoamerica. The paw wing attribute is interpreted as a feathered wing which would carry the avianserpent "through the heavens" (Taube 1995:85), presumably as it arbitrated the onset of rainfall. Remarkably, drops of rain are occasionally depicted along with the creature (Taube 1995: Figure 5). The combination of these attributes is very similar to the incised circular "drops" below what are individual wing feathers of the Cahal Pech examples (see Figure 6f-g).

Figure 8 compares the avian-serpent motif at Cahal Pech with contemporary specimens from several regions of Mesoamerica. While no extra-regional examples are exactly the same as the Cahal Pech avian-serpent, some similarities are noteworthy. Included are three Dili phase sherds from Santa Rosa and Chiapa de Corzo in the Upper and Middle regions of the Grijalva River Basin of Chiapas (Figure 8a-c). Although only small sections of the original motifs are present on these sherds, given symmetry they would have been quite similar to the avian-serpent. Shared design attributes include curvilinear brows over a downturned, rectangular eye and, on one specimen (Figure 8a), the distal end of 2 downturned U-shaped wing elements. The flame eyebrow of the avian-serpent mosaic at Cahal Pech (Figure 7j) is identical to those of an Intermediate Horizon carved celt from Simojoval, Chiapas (Figure 8d). Fragmentary portions of the avian-serpent wing element may also be depicted on 3 small Cuadros/early Conchas phase sherds

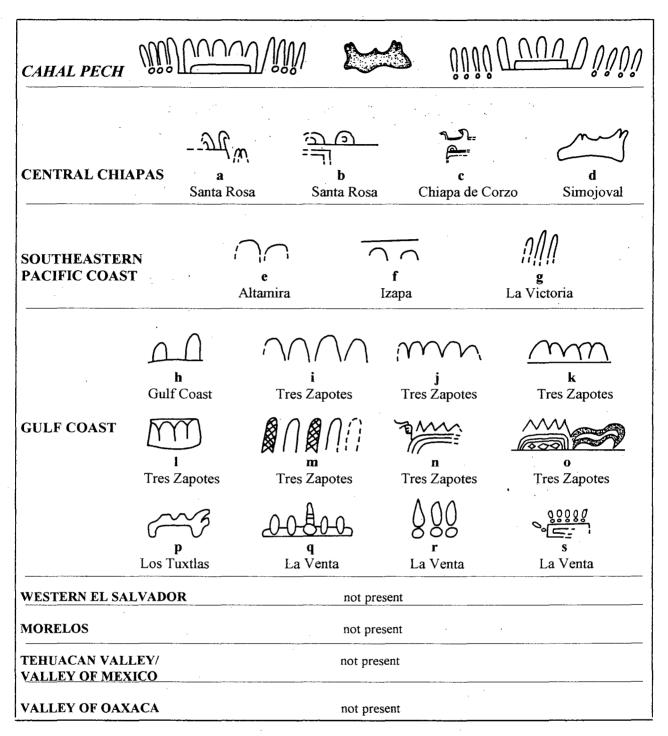


Figure 8. Comparative chart of Cahal Pech avian-serpent motifs/design attributes and those from other sites/regions of Mesoamerica. Illustrations: (a-b) after Brockington (1967:Figures 5j, 7d); (c) after Dixon (1959:Figure 24c); (d, q-r) after Drucker (1952:Figures 57m, 47a, 52); (e) after Green and Lowe (1967:Figure 80q); (f) after Ekholm (1969:Figure 39b); (g) after Coe (1961:Figure 35a); (h, p) after Joralemon (1971:Figures 5f, 177); (i, n) after Weiant (1943:Figures 6, 46a); (j-m, o) after Drucker (1943:Figures 22g-h, 40, Plates 19f, 20a); (s) after Drucker et al. (1959:Plate 55).

from the Pacific Coast of Chiapas and Guatemala (Figure 8e-g).

Downturned U-shaped wing elements were also incised on ceramic vessels in the Gulf Coast region (Figure 8h-m). In addition, two specimens from this region (see Figure 8n-o) have a downturned, rectangular eye with triangular brows, the flame eyebrow of the avian-serpent mosaic is present (Figure 8p), and the "headband" of a jade celt (Figure 8q) closely resembles the five downturned U-shaped brow elements of the Cahal Pech avian-serpent. A circle is attached to the center U-shaped element of this motif; this attribute is replicated on Altar 5 at La Venta (Figure 8r). Finally, a remarkably similar version of the Cahal Pech avian-serpent appears as a pectoral on La Venta Stela 3. This motif (Figure 8s) includes a rectangular eye and oval brow elements with "drops." Its context, presumably on the chest of an important political figure, suggests that the avian-serpent was integral to Olmec politico-religious symbolism.

Kan-Cross. Another pan-Mesoamerican motif present at Cahal Pech during the Cunil phase is the kan-cross. Given its name, it is hardly surprising that this motif is composed of a cross formed by 4 incurved arcs or L-shaped brackets (see Coe 1965:761). Occasionally the cross frames a circular "dot." Apparently, the kan-cross symbolizes horizontal space: the distal ends of the cross the cardinal directions, the central dot the homeland or central place. Although only one example of a kan-cross motif was found at Cahal Pech—incised on the superior face of a wide everted rim plate—this motif is remarkably similar to counterparts from numerous regions of Mesoamerica (Figure 9). Contemporaneous versions of the kan-cross have been found in the Upper Grijalva River Basin, Central Depression, and southeastern Pacific Coast of Chiapas (Figure 9a-g), Chalchuapa, El Salvador (Figure 9h-i), the Gulf Coast (Figure 9j-l), Chalcatzingo, Morelos (Figure 9m), the Tehuacan Valley, (Figure 9n-o), the Valley of Mexico (Figure 9p-q), and the Valley of Oaxaca (Figure 9r-s).

Cleft-Head. The cleft head attribute of the Olmec or pan-Mesoamerican were-jaguar is also present at Cahal Pech. The Cahal Pech example consists of adjacent, open-ended rectangles with outsloping inner sides, though across Mesoamerica this attribute may also be expressed as a V-shaped cleft. Joralemon (1971:7) considers the cleft attribute an "extremely common characteristic of Olmec deities." His numerous examples demonstrate the areal extent of this motif which, alone or combined with other design

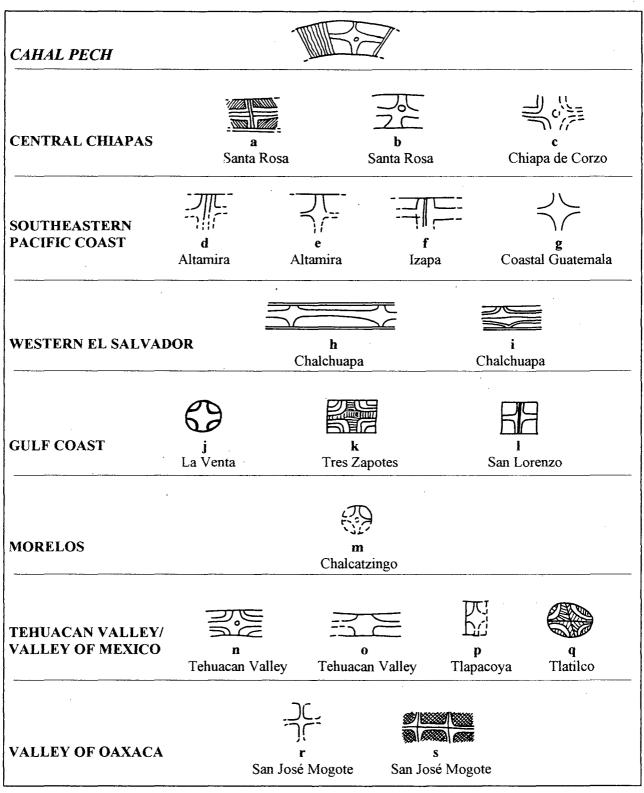


Figure 9. Comparative chart of Cahal Pech Kan-cross motif and examples from other sites/regions of Mesoamerica. Illustrations: (a-b) after Brockington (1967:Figure 13a, c); (c) after Dixon (1959:Figure 23f); (d-e) after Green and Lowe (1967:Figures 89i, 23b); (f) after Ekholm (1969:Figure 48a); (g) after Coe and Flannery (1967:Plate 11c); (h-i) after Sharer (1978:Figures 6d5, h4); (j, p) after Joralemon (1971:Figures 197, 66); (k) after Weiant (1943:Figure 40); (l) after Coe and Diehl (1980:Figure 139m); (m) after Cyphers (1987: Figure 13.15h); (n-o) after MacNeish et al. (1970:Figures 32, 42); (q) after Porter (1953:Plate 10a); (r-s) after Flannery and Marcus (1994:Figures 12.130a, 12.143).

attributes, was applied to almost every medium available at the time. Flannery and Marcus (1994:136) suggest that the cleft is a fissure in the skull of the were-jaguar which, they argue, is symbolic of Earth and earthquake. Whatever its referent may have been, it is clear that variations of the cleft-head motif are present in many regions of Mesoamerica. Pyne's (1976:273, Figure 9.7f) "motif 11" is one such variation which she describes as "vertical bars that look like oversized chemical brackets."

Considering the abstract design and symbolic content of these motifs it is remarkable, indeed, that they are so widely distributed and frequent in Mesoamerica at this time. For example, the cleft-head attribute at Cahal Pech has counterparts the Upper Grijalva River Basin and southeastern Pacific Coast regions of Chiapas (Figure 10a-d), the Gulf Coast (Figure 10e; see also Joralemon [1971:7] for numerous other examples), the Valley of Oaxaca (Figure 10f-g), the Valley of Mexico (Figure 10h-i), and Morelos (Figure 10j). In fact, examples of this attribute are so numerous that only a small selection of directly comparable examples are illustrated for comparison. The Cahal Pech motif 11 version of the were-jaguar was also very frequent at this time. For example, counterparts are present in the Pacific Coast and Central Depression regions of Chiapas (Figure 10k-o), the Gulf Coast (Figure 10p-q), the Valley of Oaxaca (Figure 10r-s), the Tehuacan Valley (Figure 10t), and Morelos (Figure 10u).

Lightning. Another recognizable design at Cahal Pech which may be loosely classified under the Intermediate Horizon category is the straightforward depiction of lightning. Because lightning was a natural phenomena experienced by cultures throughout Mesoamerica, similar examples from extraregional collections may be coincidental. Having said this, similar naturalistic depictions of lightning are present in the Central Depression of Chiapas (Figure 11a-b) and the Gulf Coast region (Figure 11c).

Figurines

Ceramic figurines are the other artifact class at Cahal Pech which can be examined for extra-regional stylistic influence. Unfortunately the small sample of 91 fragments currently represents the only collection of this date from the central Maya Lowlands available for comparative study. That the collection was locally produced during the Cunil phase is indicated by stratigraphic position and shared paste

CAHAL PECH	CLEFT-HEAD	MOTIF 11		
CENTRAL CHIAPAS	S a Santa Rosa	(
SOUTHEASTERN PACIFIC COAST	b c d Altamira Altamira Altamira	m n o Altamira Izapa Coastal Guatemala		
GULF COAST	e Gulf Coast	p q Tres Zapotes San Lorenzo		
VALLEY OF OAXAC	CA f g San José Mogote	r San José Mogote		
TEHUACAN VALLE VALLEY OF MEXIC		t Tehuacan Valley		
MORELOS		- <u>3 </u> -		
WESTERN EL SALVAI	Chalcatzingo DOR not present	Chalcatzingo not present		

Figure 10. Comparative chart of the Cahal Pech were-jaguar cleft-head attribute/motif 11 and examples of each from other sites/regions of Mesoamerica. Illustrations: (a) after Brockington (1967:Figure 28); (b-d, m) after Green and Lowe (1967:Figures 89h, 90a, 91l, 23a); (e, h-i) after Joralemon (1971:Figures 3, 63a, g); (f-g, r-s) after Pyne (1976:Figure 9.7g) and Flannery and Marcus (1994:Figures 12.17, 12.11d, 12.75c); (j, u) after Cyphers 1987:Figure 13.11f, 13.14); (k-l) after Dixon (1959:Figures 24a, 31b); (n) after Ekholm (1969:Figure 45h); (o) after Coe and Flannery (1967:Figure 23b); (p) after Weiant (1943:Figure 41c); (q) after Coe and Diehl (1980:Figure 141f); (t) after MacNeish et al. (1970:Figure 36).

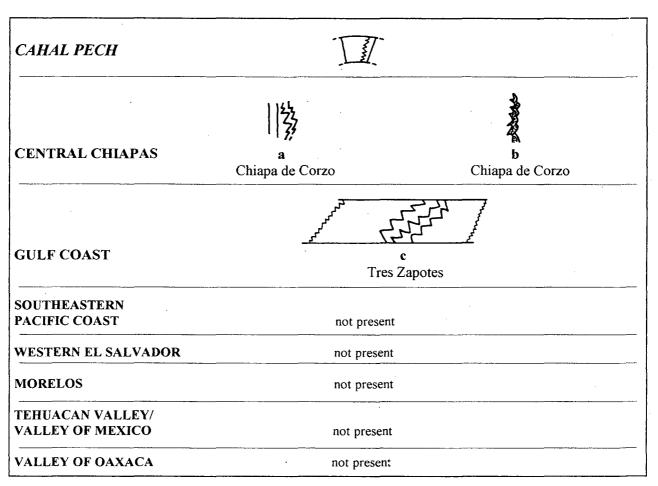


Figure 11. Comparative chart of Cahal Pech Lightning motif and examples from other sites/regions of Mesoamerica. Illustrations: (a-b) after Dixon (1959: Figures 46b, 24f); (c) after Drucker (1943: Figure 35c).

composition with contemporary ceramic vessels. However, 2 small fragments were made of kaolin clay that, with the exception of one effigy vessel fragment, was not used to produce ceramics. These specimens were likely imported. Although the collection includes solid heads, torsos, appendages, and zoomorphic fragments, only the human heads are included for study here since they are the most salient part of figurines and, arguably, the part most indicative of style.

Cunil phase human figurine heads (Figure 12a-c) include solid and hollow specimens characterized by "dual ovate-impressed" eyes with a central punctation for the pupil (Cheetham 1998). The facial area was either slipped with a thin cream or red (or both), or simply left unslipped. The more intact specimens also display elaborate, piled headdress/hairdos, open mouths, incised teeth and ears, ear plugs, and, on several examples, punctated nostrils and red-painted headdresses. Headdresses, in particular, are difficult to describe because it is not certain whether actual hair or head-gear is being represented. I suspect that hair was tightly

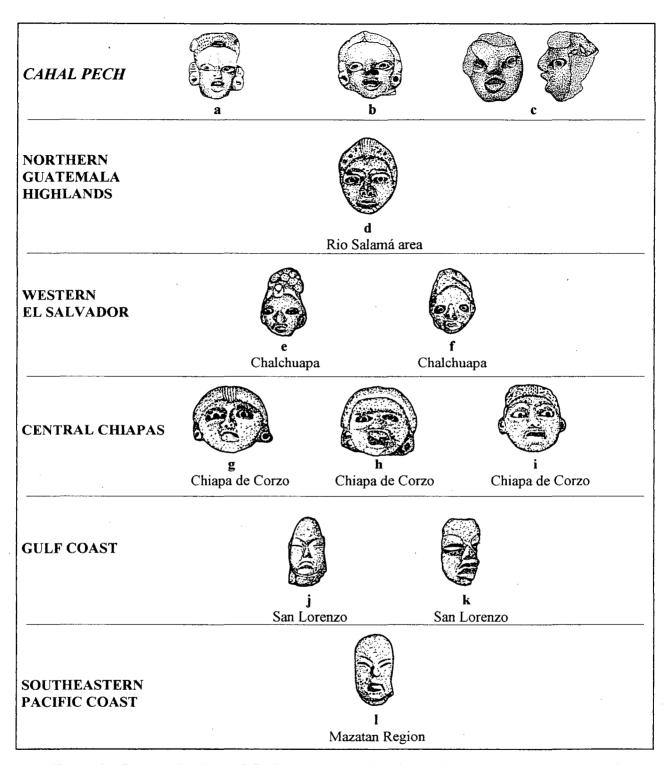


Figure 12. Comparative chart of Cunil phase human figurine heads and contemporaneous specimens from neighboring regions of Mesoamerica. Illustrations: (a-c) dual ovate-impressed eye heads, Cahal Pech; (d) punctate-eye head (after Sharer and Sedat 1987:Plate 15.29a); (e-f) egg-shaped heads (after Dahlin 1978: Figure 5b1-2); (g-i) punched-eye heads (after Lee 1969:Figures 3b, 2g, 1h); (j-k) Olmec style heads (after Coe and Diehl 1980:Figures 350, 351); (l) Olmec style head (after Blake et al. 1995:Figure 7l).

packed into a cloth wrap or animal pelt that, in some cases, had additional decoration. For example, one head (Figure 12a) appears to have marine shells or topknots projecting from a smooth, red-painted and spotted surface covering the hair while another (Figure 12b) has a diadem-like headband. In profile, Cunil phase heads are quite thin, although the whistle/ocarina specimen (Figure 12c) is thicker to accommodate a small sounding chamber in the back of the head. This specimen was also perforated for suspension, probably around a person's neck.

"Punctate-eye" figurines of the northern Guatemala Highlands (Figure 12d) share several stylistic attributes with the Cahal Pech specimens, including oval eyes with single punctated pupils, diadem-like headbands, punctated nostrils, and cream slipped facial areas. Incised ears and ear plugs are absent. This style, in turn, is similar to Gomez "Egg-shaped" figurines from Chalchuapa, western El Salvador (Figure 12e-f), which usually have ear-plugs. The chronological position of both styles, however, is problematical since the Gomez Egg-shaped figurines belong to a lengthy, 600 year figurine "complex" (c. 1200-600 B.C.). Numerous Cunil phase figurine attributes resemble those of Cotorra and Dili phase specimens from the Central Depression of Chiapas (Figure 12g-i). Similarities include diadem headbands, punctated headdresses with topknots, oval shaped eyes, ear plugs, punctated pupils and nostrils, white or cream slipped faces, and open mouths. The central Chiapas specimens are, however, thicker, wedge-shaped, and sometimes have additional punctations in the corner of the eyes (see, e.g., Figure 12g). The pupil punctations are also more circular than the Cahal Pech specimens.

The figurine styles of Cahal Pech and most neighboring regions are, however, very different from the dominant figurine style of the Gulf Coast (Figure 12j-k). Indeed, from about 1100-900 B.C. 87 percent of all figurines produced at the Olmec site of San Lorenzo are depicted with distinctively Olmec style attributes—bald heads, slit-eyes, and downturned mouths. Although contemporary or slightly later figurine collections from other regions occasionally include Olmec or 'Olmec-like' specimens (Dahlin 1978:Figure 12b1; Harlan 1987:Figure 14.4; Sharer and Sedat 1978:Plate 15.29f-g; Lee 1969:Figure 4f-k), current data indicate that they were not produced as frequently as they were in the Gulf Coast. An exception to this may be the Mazatan sub-region of the southeastern Pacific Coast where late Cherla and Cuadros phase figurine heads (Figure 12l) are "almost indistinguishable" from Gulf Coast Olmec specimens (Blake et al. 1995:171). As discussed earlier, the

high frequency of Olmec style figurines may actually be a by-product of Olmec colonization (Clark 1997). Certainly, ceramic vessel, figurine, and other artifact styles suggest that the Olmec "tradition" peaked in the southeastern Pacific Coast region at this time (Blake et al. 1995:175).

By about 1000-900 B.C. figurines with oval eyes and punched pupils were being produced in the central Maya Lowlands and neighbouring regions to the south and south-west. Although this pan-regional tradition of "punched-eye" style figurines is remarkably homogenous, particular design attributes—such as head shape and particular eye attributes—do indicate regional variation or stylistic preferences. The Cahal Pech collection represents a regional version of this style, and is notable for its absence of the Olmec or "Olmec-like" style figurine heads of neighboring regions where punched-eye figurines were the dominant style. It would appear that Olmec style figurines were not part of the Intermediate Horizon symbol system at Cahal Pech.

The Intermediate Horizon Style and Social Context

Any archaeological study of symbolic interaction should be able to demonstrate a "social" context of use; in particular, use by a small segment of the community. Accordingly, an examination of primary and secondary context, disposal patterns, and site formation processes is useful. At Cahal Pech, current data indicate contextual variation between the local and Intermediate Horizon styles defined through formal analysis. For example, whereas pottery sherds with local (linear and curvilinear) designs were found across the site core and in the lowermost levels of peripheral settlement clusters, Intermediate Horizon motifs were only recovered in the vicinity of site core Structure B-IV. Secondary contexts at this location include architectural fill and the surface of interior and patio floors. As noted above, a primary context for Intermediate Horizon symbolism at this location is also indicated by a cache of jade and ceramic artifacts below the floor of a late Cunil phase building. The distribution of Cunil phase figurine fragments throughout the settlement, on the other hand, indicates they had a domestic function that was performed in all houses of the community.

In a discussion of secondary context, Schiffer (1972:162; Plog 1978:150; Schiffer 1987:47-98; Wilson 1994) notes the development of specialized, communal discard locations as community size and

population increases. Conversely, the smaller the settlement the less frequent such discard locations will be. In this case, *in situ* refuse surrounding specific buildings may occasionally be gathered, mixed with other quarried material, and redeposited as sub-floor fill (Hammond et al. 1991:20-21, Figure 2.10). Such a "micro" formation process is applicable to the early Structure B-IV buildings at Cahal Pech given the exclusivity of Intermediate Horizon motifs at this location. By extension, this exclusivity clearly indicates that figurines were used at this location—not brought to the location with other communal trash.

Determining the function of Structure B-IV during the Cunil phase is critical to assessing the social context in which Intermediate Horizon style symbolism was used at Cahal Pech. Were these early buildings intended for some sort of public use or were they the houses of community leaders? Although the orientation of their long axis (slightly west of magnetic north) is indicative of public architecture of later times, there are several traits which indicate a domestic function. While the floors of later public buildings are most always clear of debris, the floors of these buildings were conspicuously littered with household debris. This debris includes faunal remains—often very small and embedded into the floors indicating that food was frequently consumed at this location. The abundance of carbonized gourd fragments, moreover, suggests that cooking activity frequently occurred at this location. Items of personal adornment such as shell beads, slate pectoral plaque fragments, and faunal pendants may also be attributable to domestic activity. The use of human figurines at this location also indicates a domestic function, given that figurines were a common household item elsewhere in the community. The figurines used at this location are also "typical" insofar as they are not more elaborate or larger than contemporary specimens from other areas of the settlement. In sum, a domestic function for the early B-IV buildings seems the more probable interpretation. The relatively elaborate nature of these residences, coupled with the exclusive use of politico-religious symbolism at this location, suggests that its occupants were most likely community leaders, possibly even religious practitioners.

The exclusive distribution and politico-religious interpretation of Intermediate Horizon symbolism has also been argued for other regions of Mesoamerica. Vessels with specific pan-Mesoamerican motifs were used to differentiate sections (or *barrios*) of communities—in some cases whole communities—in the Valley of Oaxaca, where they were also used during the San José phase to denote the gender of burials

and are present in higher frequencies nearby or within the structural fill of elite households (Marcus 1989; Whalen 1981; Tolstoy 1989b). The association of Intermediate Horizon symbolism with elite households also appears to have been the case at Cahal Pech. In sum, current contextual data suggest that these motifs were not simply passive decorative designs, but rather, meaningful symbols associated with internal competition, information exchange, and socio-political status. In other words, these motifs may have been negotiated, socio-political messages intended to be "read." The referents of these motifs, moreover, suggest that the message was, in part, religiously based.

Assessing Meaning: The Intermediate Horizon style at Cahal Pech and Perspectives of Distribution

As the above heading indicates, this section evaluates the stylistic, temporal, and contextual aspects of Intermediate Horizon symbolism at Cahal Pech against the expectations of the "mother" and "sister cultures" perspectives outlined earlier. Although neither perspective in its entirety adequately explains the appearance of the symbolism at Cahal Pech, several aspects are indeed applicable. I seek these out, dismiss others, and advance a syncretic model which is appropriate for the present case study. The theoretical implications of this perspective are then examined as a contributing factor in the emergence of complex social and political inequality at Cahal Pech.

As noted earlier, the mother culture perspective includes "coercive" and "voluntary" scenarios. The coercive scenario, when applied to Cahal Pech, seems highly unlikely. Although the symbolism in question appears after 1200 B.C., is found in specific contexts, and shares some very similar design attributes with that of the Gulf Coast, there is no direct evidence of Olmec colonization. Several lines of evidence affirm this interpretation. The formal and technical analysis of Cunil phase ceramics indicate that this was a locally developed tradition emphasizing incised designs as opposed to the highly distinctive, carved serving vessels of the Gulf Coast. Olmec style figurines are also absent in the Cahal Pech collection.

On the other hand, emulation as a mechanism of transference is not so easily dismissed. The symbolism appears two centuries later than it does in the Gulf Coast region and several motifs—though locally produced and executed in a distinctive manner—are similar to examples from the Gulf Coast.

Since symbolic equivalents of the Cahal Pech motifs are found in several regions of Mesoamerica it cannot be demonstrated conclusively that the "donor" culture was, in fact, the Olmec. The reverse is also true, and because the avian-serpent or sky-dragon motif of the Gulf Coast is, in some instances, very similar to that of Cahal Pech, the Olmec must remain a candidate in this regard even though Olmec style figurines are lacking. Additional data which suggest emulation include the exclusive contexts and infrequency of the Cahal Pech symbolism. This is indicative of restricted access and is precisely the context we would expect if the symbols were adopted for politico-religious purposes. If inter-regional symbol emulation was indeed the mechanism employed in this instance, then this theory must account for the *ability* to incorporate politico-religious symbolism without alienating the local population in the process. Ability, which is critical to the process under analysis, is not addressed by the mother culture perspective.

The Cahal Pech data can also be tested against the temporal, stylistic, and contextual expectations of the sister cultures model. Beginning with its temporal expectations, it is clear that they cannot be met. Olmec "influence" of some sort cannot be dismissed outright (a key contention of this model) because the Cahal Pech symbolism appears some 206 years after the introduction of Olmec symbolism in the Gulf Coast region. The contention of the sister cultures model that pan-Mesoamerican symbolism was transferred from perishable media (gourds or wooden vessels) to pottery vessels at the outset of ceramic production can also be invalidated if applied to this region. The earliest ceramics currently known from the southernmost area of the Maya Lowlands (the Copán Rayo complex) do not carry incised motifs yet they predate the San Lorenzo phase of the Gulf Coast. The conspicuous lack of motifs at this time is also evident along the southeastern Pacific Coast and all other regions with ceramic complexes preceding the introduction of symbolism, including the Gulf Coast.

The stylistic expectations of the sister cultures model can also be invalidated since the Cahal Pech motifs are not entirely dissimilar or unique when compared to those of other regions, including the Gulf Coast. On the contrary, the motifs are virtually identical in several instances. Given the highly abstract nature of this symbolism, the remarkable inter-regional similarity is the direct opposite of what would result from the regional development of a pan-Mesoamerican symbol system. Moreover, Olmec style

figurines are completely absent but should be present as part of "belief system" as the model necessitates.

The contextual expectations of the sister cultures model are also difficult to validate. Intermediate Horizon style symbolism appears in specific contexts at Cahal Pech, where it is associated with the most elaborate domestic architecture and is carried on a very small percentage of vessels. This suggests that access to the symbolic realm was deliberately restricted to specific persons or groups, the opposite of what would be expected if it developed in an egalitarian setting over many centuries.

Emulation appears to have been the process responsible for the appearance of the Intermediate

Horizon style symbols at Cahal Pech. Pinpointing the ultimate source of the symbolism is, however,
another matter. Although the origins question is clearly one of interest, it is secondary in terms of the
process being examined here. Accepting for the moment that the symbolism was imported to Cahal Pech,
we are still faced with explaining how politico-religious symbolism was successfully adopted at the local
level. It is here, I believe, that a somewhat modified version of the shared belief system is applicable, since
this would be the only condition—aside from imposition—which would allow for the successful
incorporation of supernatural symbols with political overtones into an egalitarian community.

Accordingly, I suggest an alternative to both the "mother culture" and "sister cultures" models. This model has two premises. First, the "Intermediate Horizon" symbolism at Cahal Pech was produced in an Olmec derived style and was adopted by community "leaders" through periodic contact with Olmecs or other peoples of a neighbouring region, or regions. Second, this symbolism was successfully incorporated into the socio-political life of this settlement—and probably many, many others—only by virtue of local familiarity with the concepts/supernatural entities being portrayed, *not* the symbols themselves. From this perspective, the pan-Mesoamerican shared belief system was a phenomenon which allowed symbols to be adopted rather than a phenomenon fostering the "creation" of similar symbolism in numerous regional settings. The method of displaying these symbols on ceramic vessels was certainly a powerful new way of exercising supernatural beliefs, and one which could be readily incorporated into other facets of community life such as feasting, religious observance, and the socio-political aspirations of those charged with the mediation of supernatural powers.

The temporal, stylistic, and contextual expectations of this model may also be posed and evaluated. The symbols used should be later than in potential donor regions, including the Gulf Coast, and other evidence of long-distance exchange should be present in the archaeological record at a very early date. These temporal expectations are easily met since the symbolism at Cahal Pech appears approximately 200 years after the initial florescence of the Olmec style in the Gulf Coast, and 100 years later than most other regions. Obsidian and marine shell artifacts in the earliest deposits at Cahal Pech also indicate that inhabitants of the Belize Valley were engaged in long-distance exchange by at least 1000 B.C.

The stylistic expectations are similar to those posed for the voluntary scenario of the "mother culture" model: the symbolism would be applied to locally produced objects and would be similar to contemporary examples from neighboring regions. In addition, since the adoption of symbols would be subject to local beliefs, the only Intermediate Horizon style designs/motifs to be adopted would be those with relevant meaning; we would not expect the entire corpus of pan-Mesoamerican symbols. These expectations are easily met by this case study. Given the striking similarity between the symbolism of Cahal Pech and neighboring regions, a mechanism accounting for the appearance of this highly abstract symbolism, other than direct contact, is unlikely. Local production also eliminates the down-the-line exchange of ceramic vessels. In terms of the symbolic referents, the animals depicted in abstract, supernatural form at Cahal Pech (jaguars, fer-de-lance snakes) would most likely have had local significance or meaning, since these animals are indigenous to the region.

In terms of use and context, if emerging elites in the recipient region were indeed emulating the socio-political manner in which these symbolic motifs were being used in neighbouring regions, then there should be some basis of politico-religious leadership in the donor culture, or cultures. The symbolism adopted for political purposes would also appear in specific contexts such as caches and elite domestic buildings and would only form a small part of the overall assemblage since it would have been used for political purposes by a small segment of society. Both of these socio-political/contextual expectations can be validated with the present case study. Taking the latter expectation first, Intermediate Horizon symbolism at Cahal Pech is found in specific contexts (most likely elite domestic buildings) where religious activity occurred. These buildings were quite likely the residences of religious practitioners

during the Cunil phase. Also, the principal known means of symbolic presentation at Cahal Pech was serving vessels. Presumably, such display was an important part of hosted feasts and ritual activity in general. Second, studies of political structure in the Gulf Coast Olmec heartland (Coe 1989; Clark 1997; Diehl and Coe 1996) and southeastern Pacific Coast of Chiapas (Clark and Blake 1994) demonstrate that very complex polities existed in these regions well before the founding of Cahal Pech. By all accounts Olmec political authority was also, at least in part, religiously based. Thus, models of socio-political behaviour were available for emulation. Less complex, non-egalitarian cultures probably also existed in central Chiapas.

Although this model is tailored to the present case study it can be applied in other instances where Intermediate Horizon symbolism is present. By no means, however, is it the only model applicable to explaining the distribution of the Early Horizon style. For example, both colonization by the Olmec (Clark 1997) and intermarriage (Flannery 1968) may explain the presence of Early and Intermediate Horizon style symbolism in other regions of Mesoamerica. In both scenarios, local beliefs would be somewhat redundant since the "adopted" symbols would either be imported along with colonists or exported piecemeal, the result of intermarriage with Olmec individuals from the Gulf Coast. This does not appear to have been the case at Cahal Pech.

SUMMARY AND CONCLUSIONS

This study has focused on the socio-political process behind the appearance and use of Intermediate Horizon "Olmec-like" symbols in the central Maya Lowlands some 200 years after the initial florescence of the Early Horizon style across Mesoamerica. With this time-line in mind, I have compared the design style of Cunil phase incised ceramic vessel motifs and figurines from the site of Cahal Pech with motifs and figurine styles of neighboring regions, including the Gulf Coast Lowlands. Noting numerous stylistic similarities, the high level of abstraction inherent in the symbols, and the indigenous nature of the ceramic vessel assemblage, I have argued that inter-regional interaction was the method by which specific individuals or groups at Cahal Pech adopted Intermediate Horizon symbols. Inter-regional interaction also provided individuals at Cahal Pech the opportunity to emulate the social context and manner in which the

adopted symbols were used in neighbouring regions. This perspective does not imply direct diffusion, nor does it imply the spontaneous or independent invention of the "sister cultures" perspective. Instead, it implies the ability to incorporate politically charged religious symbolism into what was most likely an egalitarian community. The temporal lag is critical in making this distinction.

It is the incorporation aspect of this perspective which is of particular interest. With the proposed syncretic model, particular Intermediate Horizon symbols would have been adopted that did not contravene local beliefs. As noted by Firth,

In "primitive" [egalitarian] society... an artist is concerned to portray symbols already recognized by the community rather than to invent new symbolic forms which the community has to construe... the initial common ground is more openly recognized—the symbols... are shared from the outset by groups of people. [1973:216; emphasis added]

It is precisely at the point of incorporation that Marcus's (1989) theory of a unifying, pan-Mesoamerican belief system is applicable. Without pre-existing, common knowledge—possibly, homage—of the symbol referents (or an approximation thereof), the utility of the adopted symbols for local use would be negligible.

The subject matter and exclusive distribution of Intermediate Horizon symbols at Cahal Pech also suggests that the individuals who used these symbols were religious practitioners who had control over their use within the community. Throughout the Cunil phase, especially toward its end, the domestic location at which the symbols were used became more elaborate and differentiated from other households at the site. That one or more generations of shaman incorporated and capitalized on "new" visual methods of symbolic expression and ritual for personal and familial gain is the process most suited to the archaeological record in this case, and likely many others involving the adoption of Early and Intermediate Horizon symbolism in Mesoamerica. Indeed, the de facto position of a shaman as a political leader is well documented in ethnographic and ethnohistoric literature. Hugh-Jones (1994:45-46), for example, considers the "hierarchical and egalitarian tendencies" of north-west Amazonian social organization directly related to the "ambiguous position of the shaman... [which] implicitly corresponds to that of chief." The role of the shaman is also implied in archaeological case studies. For instance, Burger (1992:213) attributes the early spread of Chavín symbolism in Peru to "the extension of a shared

cosmology made visible in ritual objects."

In Mesoamerica, such a "shared cosmology" probably existed for several centuries prior to the Early Horizon. It was only with the development of the complex San Lorenzo Olmec polity, however, that this cosmology or belief system became evident—particularly with ceramic vessels and figurines—and began to appear in other regions. In many regions the appearance of "Olmec-like" symbolism, whatever it is called, coincides with the first indication of ascribed high status (Whalen 1981; Marcus 1989). After the collapse of San Lorenzo about 950-900 B.C., the derivative Intermediate Horizon style was initiated. With its emphasis on increasingly abstract designs and extensive use of jade objects, the Intermediate Horizon style is perhaps best represented at the Olmec site of La Venta. It is during the hiatus between the collapse of San Lorenzo and the early fluorescence of La Venta that Intermediate Horizon style symbols appear at Cahal Pech, though the lack of Early Horizon Olmec style figurines and the relative absence of carved pottery suggests that the Cahal Pech symbols, for the most part, date to the early occupation of La Venta.

Although I cannot conclusively demonstrate that the "donor" culture in this case was in fact the Olmec, this possibility should not be dismissed. The similarity between symbols from both regions—in particular, the avian or sky-serpent motif depicted as a pectoral on La Venta Stela 3—strongly suggests that similar supernatural concepts existed contemporaneously in both regions. These symbols, however, may also be found in other regions of Mesoamerica. What is more certain, as noted by Willey (1971:296), is that at this time "the sharing of common ideologies led to the threshold of civilization by enlarging the effective social field." The Maya of the central lowlands, though perhaps relegated to the tall grass, were certainly in that field.

NOTES

- 1. All dates and phases in this paper are reported in *uncalibrated* radiocarbon years in order to effectively compare and contrast Cahal Pech data with that of extraregional sites, regions, and cultural phases. The only exception is the Early Horizon period of Peru (c. 600-100 B.C.), which is reported in the calibrated dates recently advanced by Burger (1992:230-231).
- 2. The Copán Formative sequence has recently been revised by Viel and Hall (1998). The lengthy Uir phase (900-400 B.C.) proposed by Fash (1991) now consists of 3 separate phases (see Figure 1).
- 3. Precursors of the Jocote and Savana ceramic groups defined for the Belize Valley by Gifford (1965)—and used in Sharer and Gifford's (1970) immigration hypothesis—are present in the Cunil ceramic complex (Cheetham and Awe 1996). The precursor of Jocote Orange-brown (Ardagh Orange-brown) consists of medium to large size bowls with incurved or, less frequently, outcurved sides and unslipped dull orange-to-brown surfaces. A few sherds have a horizontal appliqué fillet a few centimetres below the rim which is much wider than those of Jocote Orange-brown. In addition, the contrast between the orange and brown surface "patches" is much more pronounced than those of Jocote Orange-brown. The precursor of Savana Orange (Cu Orange) has fine, heavily ash tempered reddishyellow paste; forms include dishes and bowls with outsloping to outcurved sides (see Cheetham 1998 for a brief discussion on the evolution of Mars Orange ware).

REFERENCES CITED

Adams, R. E. W.

- 1971 *The Ceramics of Altar de Sacrificios*. Harvard University, Peabody Museum of Archaeology and Ethnology Paper 63(1). Cambridge, MA.
- 1977 (editor) The Origins of Maya Civilization. University of New Mexico Press, Albuquerque, NM.

Agrinier, P.

1984 The Early Olmec Horizon at Mirador, Chiapas, Mexico. Papers No. 48. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Andrews, E. W., V.

1990 The Early Ceramic History of the Lowland Maya. In *Vision and Revision in Maya Studies*, edited by F. Clancey and P. D. Harrison, pp. 1-19. University of New Mexico Press, Albuquerque, NM.

Awe, J. J.

- 1992 Dawn in the Land Between the Rivers: Formative Occupation at Cahal Pech, Belize and its Implications for Preclassic Development in the Maya Lowlands. Ph.D dissertation, University of London, UK.
- 1994 Ritual, Religion, and Cultural Complexity in the Middle Formative Belize River Valley. Paper presented at the 12th Maya Weekend, University Museum, University of Pennsylvania, Philadelphia, PA.

Awe, J. J., and D. Cheetham

1993 The Emergence of Cultural Complexity in the Central Maya Lowlands: A Perspective from Cahal Pech, Cayo, Belize. Paper Presented at the 26th Chacmool Conference, Calgary, AB.

Awe, J. J., and P. F. Healy

1994 Flakes to Blades? Middle Formative Development of Obsidian Tools in the Upper Belize Valley. *Latin American Antiquity* 5(3):193-205.

Barkow, J. H.

1994 Evolutionary Psychological Anthropology. In *Handbook of Psychological Anthropology*, edited by P. K. Bock, pp. 121-138. Greenwood Press, Westport, CT.

Barnett, H. G.

1953 Innovation: The Basis of Culture Change. McGraw-Hill, New York.

Bernal, I.

1968 Views of Olmec Culture. In *Dumbarton Oaks Conference on the Olmec*, edited by E. P. Benson, pp. 135-142. Dumbarton Oaks, Washington, DC.

Blake, M.

- 1991 An Emerging Early Formative Chiefdom at Paso de la Amada, Chiapas, Mexico. In *The Formation of Complex Society in Southeastern Mesoamerica*, edited by W. R. Fowler, Jr., pp. 27-46. CRC Press, Boca Raton, FL.
- Blake, M., J. E. Clark, B. Voorhies, G. Michaels, M. W. Love, M. E. Pye, A. A. Demarest, and B. Arroyo 1995 Radiocarbon Chronology for the Late Archaic and Formative Periods on the Pacific Coast of Southeastern Mesoamerica. *Ancient Mesoamerica* 6:161-183.

Boggs, S. H.

1950 Olmec Pictographs in the Las Victorias Group, Chalchuapa Archaeological Zone, El Salvador. Carnegie Institution of Washington, Notes on Middle American Archaeology and Ethnology, Vol. 4(99):85-92. Washington, DC.

Brockington, D. L.

1967 The Ceramic History of Santa Rosa, Chiapas, Mexico. Papers No. 23. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Burger, R. L.

1992 Chavin and the Origins of Andean Civilization. Thames and Hudson, New York.

Carneiro, R. L.

1967 On the Relationship between size of Population and Complexity in Social Organization. Southwestern Journal of Anthropology 23:234-243.

1970 A Theory of the Origin of the State. *Science* 169:733-738.

Cheetham, D.

- 1992 Cahal Pech, Str. B-4 Excavations: 1988-1991. Manuscript, Department of Anthropology, Trent University, Peterborough, ON, Department of Archaeology, Belmopan, Belize.
- 1995 Excavations at Structure B-4, Cahal Pech, Belize: 1994 Operations. In *Belize Valley Preclassic Maya Project: Report on the 1994 Field Season*, edited by P. F. Healy and J. J. Awe, pp. 18-44. Trent University, Occasional Papers in Anthropology 10. Peterborough, ON.

- 1996 Reconstruction of the Formative Period Site Core of Cahal Pech, Belize. In *Belize Valley Preclassic Maya Project: Report on the 1995 Field Season*, edited by P. F. Healy and J. J. Awe, pp. 1-33. Trent University, Occasional Papers in Anthropology 12. Peterborough, ON.
- 1998 Middle Formative Pottery Figurines of the Central Maya Lowlands. Ancient Mesoamerica, in press.
- n.d. A Termini Group "Minor Center" and the Socio-political Evolution of Cahal Pech, Belize. In *New Perspectives on the Prehistory of the Belize Valley*, edited by J. F. Garber and J. J. Awe. UCLA Institute of Archaeology Press, Los Angeles, CA. In press.

Cheetham, D., and J. J. Awe

1996 The Early Formative Cunil Ceramic Complex at Cahal Pech, Belize. Paper presented at the 61st Annual Meeting of the Society for American Archaeology, New Orleans, LA.

Clark, J. E.

- 1990 Olmecas, Olmequismo y Olmequización en Mesoamérica. Arqueología 3:49-55.
- 1993 Una Reevaluación de la Entidad Política Olmeca: ¿Imperio, Estado o Cacicazgo? In *Degundo y Tercer Foro de Arqueología de Chiapas*, edited by T. A. Lee, Jr., pp. 159-169. Instituto Chiapaneco de Cultura, Tuxtla Gutierrez, Chiapas, Mexico.
- 1994 The Development of Early Formative Rank Societies in the Soconusco, Chiapas, Mexico. Ph. D dissertation, University of Michigan, Ann Arbor.
- 1997 The Arts of Government in Early Mesoamerica. Annual Review of Anthropology 26:211-234.

Clark, J. E., and M. Blake

- 1989 El Origen de la Civilización en Mesoamérica: Los Olmecas y Mokaya del Soconusco de Chiapas, Mexico. In *El Preclásico o Formativo: Avances y Perspectivas*, edited by M. Carmona Macias, pp. 385-403. Museo Nacional de Antropología, Mexico City.
- 1994 The Power of Prestige: Competitive Generosity and the Emergence of Rank Societies in Lowland Mesoamerica. In *Factional Competition and Political Development in the New World*, edited by E. M. Brumfiel and J. W. Fox, pp. 17- 30. Cambridge University Press, Cambridge, UK.

Coe, M. D.

- 1961 La Victoria: An Early Site on the Pacific Coast of Guatemala. Harvard University, Peabody Museum of Archaeology and Ethnology Paper 53. Cambridge, MA.
- 1965 The Olmec Style and its Distribution. In *Handbook of Middle American Indians, Volume 3*, edited by G. R. Willey, pp. 739-775. University of Texas Press, Austin, TX.
- 1968a America's First Civilization. American Heritage, New York, NY.
- 1968b San Lorenzo and the Olmec Civilization. In *Dumbarton Oaks Conference on the Olmec*, edited by E. P. Benson, pp. 41-71. Dumbarton Oaks, Washington, DC.
- 1977 Olmec and Maya: A Study in Relationships. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 183-198. University of New Mexico Press, Albuquerque, NM.
- 1989 The Olmec Heartland: Evolution of Ideology. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 68-82. Cambridge University Press, Cambridge, UK.

Coe, M. D., and R. A. Diehl

1980 In the Land of the Olmec (Volume 1): The Archaeology of San Lorenzo Tenochtitlan. University of Texas Press, Austin.

Coe, M. D., and K. V. Flannery

1967 Early Cultures and Human Ecology in South Coastal Guatemala. Smithsonian Contributions to Anthropology, Vol. 3. Smithsonian Institution, Washington, DC.

Covarrubias, M.

1957 Indian Art of Mexico and Central America. Alfred A. Knopf, New York.

Cowgill, U. M., and E. Hutchinson

1966 *The History of Laguna de Petenxil*. Memoirs of the Connecticut Academy of Arts and Sciences No. 17. New Haven, CT.

Culbert, T. P.

1985 Descriptions of the Preclassic Ceramics, Tikal, Guatemala (Eb Ceramic Complex: Eb Complex Collections). Department of Anthropology, University of Arizona, Tucson. Manuscript in possession of author.

Cyphers Guillén, A.

1987 Ceramics. In *Ancient Chalcatzingo*, edited by D. C. Grove, pp. 200-251. University of Texas Press, Austin.

1994 San Lorenzo Tenochtitlan. In *Los Olmecas en Mesoamérica*, edited by J. E. Clark, pp. 43-68. El Equilibrista, México, D.F.

Dahlin, B. H.

1978 Artifacts and Figurines. In *The Prehistory of Chalchuapa, El Salvador*, edited by R. J. Sharer, pp. 134-211. University of Pennsylvania Press, Philadelphia.

Demarest, A. A.

1989 The Olmec and the Rise of Civilization in Eastern Mesoamerica. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 303-344. Cambridge University Press, Cambridge, UK.

Diehl, R. A., and M. D. Coe

1996 Olmec Archaeology. In *Olmec World: Ritual and Rulership*, edited by E. P. Benson, pp. 11-25. The Art Museum, Princeton University. Harry Abrams, NY.

Dixon, K. A.

1959 Ceramics from Two Preclassic Periods at Chiapa de Corzo, Chiapas, Mexico. Papers No. 5. New World Archaeological Foundation, Orinda, CA.

Drucker, P.

1943 Ceramic Sequence at Tres Zapotes, Veracruz, Mexico. Smithsonian Institution, Bureau of American Ethnology, Bulletin 140. U. S. Government Printing Office, Washington, DC.

1952 La Venta, Tabasco: A Study of Olmec Ceramics and Art. Smithsonian Institution, Bureau of American Ethnology, Bulletin 153. U. S. Government Printing Office, Washington, DC.

Drucker, P., R. F. Heizer, and R. J. Squier

1959 Excavations at La Venta, Tabasco, 1955. Smithsonian Institution, Bureau of American Ethnology, Bulletin 170. U.S. Government Printing Office, Washington, DC.

Eisenstadt, S. N.

1967 Social Change, Differentiation and Evolution. In System, Change, and Conflict: A Reader on Contemporary Sociological Theory and the Debate Over Functionalism, edited by N. J. Demerath III and R. A. Peterson, pp. 213-229. The Free Press, New York.

Ekholm, S.

- 1973 The Olmec Rock Carving at Xoc, Chiapas, Mexico. Papers No. 32. New World Archaeological Foundation, Brigham Young University, Provo, UT.
- 1969 Mound 30a and the Early Preclassic Sequence at Izapa, Chiapas, Mexico. Papers No. 25. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Fash, W. L., Jr.

- 1985 La Secuencia de Ocupacion del Grupo 9N-8, Las Sepulturas, Copan, y sus Implicaciones Teoricas. *Yaxkin* 8(1-2):135-149.
- 1991 Scribes, Warriors and Kings: The City of Copan and the Ancient Maya. Thames and Hudson, London.

Feinburg, R.

1978 Rank and Authority on Anuta Island. In *Adaptation and Symbolism: Essays on Social Organization*, edited by K. A. Watson-Gegeo and S. L. Seaton, pp. 1-32. The University Press of Hawaii, Honolulu.

Firth, R.

1973 Symbols: Public and Private. Cornell University Press. Ithaca, NY.

Flannery, K. V.

1968 The Olmec and the Valley of Oaxaca: A Model for Inter-Regional Interaction in Formative Times. In *Dumbarton Oaks Conference on the Olmec*, edited by E. P. Benson, pp. 79-110. Dumbarton Oaks, Washington, DC.

Flannery, K. V., and J. Marcus

- 1990 Borron y Cuenta Nueva: Setting Oaxaca's Archaeological Record Straight. In *Debating Oaxaca Archaeology*, edited by J. Marcus, pp. 17-71. University of Michigan, Museum of Anthropology, Anthropological Papers No. 84. Ann Arbor, MI.
- 1994 Early Formative Pottery of the Valley of Oaxaca. University of Michigan, Memoirs of the Museum of Anthropology No. 27. Ann Arbor, MI.

Forsyth, D. W.

1993 The Ceramic Sequence at Nakbe, Guatemala. Ancient Mesoamerica 4:31-53.

Fox, J. G.

1996 Playing with Power: Ballcourts and Political Ritual in Southern Mesoamerica. *Current Anthropology* 37(3):483-509.

Gifford, J. C.

- 1965 Ceramics. In *Prehistoric Maya Settlements in the Belize Valley*, by G. R. Willey, W. R. Bullard, Jr., J. B. Glass, and J. C. Gifford, pp. 319-391. Harvard University, Peabody Museum of Archaeology and Ethnology Paper 54. Cambridge, MA.
- 1976 A Conceptual Approach to the Analysis of Prehistoric Pottery. In *Prehistoric Pottery Analysis* and the Ceramics of Barton Ramie in the Belize Valley, by J. C. Gifford, pp. 1-43. Harvard University, Peabody Museum of Archaeology and Ethnology Memoir 18. Cambridge, MA.

Gordon, G. B.

1898 Caverns of Copan, Honduras. Harvard University, Peabody Museum of Archaeology and Ethnology Memoir 1(5). Cambridge, MA.

Green, D. F., and G. W. Lowe

1967 Altamira and Padre Piedra, Early Preclassic Sites in Chiapas, Mexico. Papers No. 20. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Grove, D. C.

1989 Olmec: What's in a Name? In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 8-14. Cambridge University Press, Cambridge, UK.

Grove, D. C., and J. Angulo V.

1987 A Catalog and Description of Chalcatzingo Monuments. In *Ancient Chalcatzingo*, edited by D.C. Grove, pp. 114-131. University of Texas Press, Austin.

Hammond, N.

1988 Cultura Hermana: Reappraising the Olmec. Quarterly Review of Archaeology 9(4):1-4.

Hammond, N., R. Wilk, and L. J. Kosakowsky

1991 Archaeological Investigations at Cuello, 1975-1987. In *Cuello: An Early Maya Community in Belize*, edited by N. Hammond, pp. 8-22. Cambridge University Press, Cambridge, UK.

Hansen, R. D.

1991 The Maya Rediscovered: The Road to Nache. *Natural History* 91(5):8-14.

Harlan, M.

1987 Chalcatzingo's Formative Figurines. In *Ancient Chalcatzingo*, edited by D. C. Grove, pp. 252-263. University of Texas Press, Austin.

Healy, P. F.

1974 The Cayumel Caves: Preclassic Sites in Northeast Honduras. American Antiquity 39:435-447.

1984 The Archaeology of Honduras. In *The Archaeology of Lower Central America*, edited by F. W. Lange and D. Z. Stone, pp. 113-161. University of New Mexico Press, Albuquerque.

Healy, P. F., and J. J. Awe

1995 Radiocarbon Dates from Cahal Pech, Belize: Results from the 1994 Season. In *Belize Valley Preclassic Maya Project: Report on the 1994 Season*, edited by P. F. Healy and J. J. Awe, pp. 198-215. Trent University, Occasional Papers in Anthropology 10. Peterborough, ON.

1996 The Uxbenca Jade: A Middle Preclassic Olmec Jade Spoon from Belize? In *Belize Valley Preclassic Maya Project: Report on the 1995 Field Season*, edited by P. F. Healy and J. J. Awe, pp. 175-180. Trent University, Occasional Papers in Anthropology 12. Peterborough, ON.

Helms, M. W.

1979 Ancient Panama: Chiefs in Search of Power. University of Texas Press, Austin.

Henderson, J. S., and R. A. Joyce

1996 Before Playa de los Muertos: The Early Formative Archaeology of the Ulua River Valley. Paper presented at the 61st Annual Meeting of the Society for American Archaeology, New Orleans, LA.

Hester, T. R.

1994 An Introduction to Studies of the Colha Preceramic. Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, CA.

Hill, W. D., M. Blake, and J. E. Clark

1998 Ball court design dates back 3,400 years. *Nature* 392(6679):878-879.

Hodder, I.

1982 Toward a Contextual Approach to Prehistoric Exchange. In *Contexts for Prehistoric Exchange*, edited by J. E. Ericson and T. E. Earle, pp. 199-211. Academic Press, New York, NY.

Homans, G. C.

1967 Structural, Functional and Psychological Theories. In *System, Change, and Conflict: A Reader on Contemporary Sociological Theory and the Debate Over Functionalism*, edited by N. J. Demerath III and R. A. Peterson, pp. 347-366. The Free Press, New York.

Hugh-Jones, S.

1994 Shamans, Prophets, Priests, and Pastors. In *Shamanism, History, and the State*, edited by N. Thomas and C. Humphrey, pp. 32-75. The University of Michigan Press, Ann Arbor.

Jones, J. G.

1994 Pollen Evidence for Early Settlement and Agriculture in Northern Belize. *Palynology* 18:205-211.

Joralemon, P. D.

1971 A Study of Olmec Iconography. Studies in Pre-Columbian Art and Iconography No. 7. Dumbarton Oaks, Washington, DC.

1981 Tricephalic Units in Olmec, Izapan-Style, and Maya Art. In *The Olmec and Their Neighbours*, edited by E. P. Benson, pp. 289-308. Dumbarton Oaks, Washington, DC.

Joyce, R. A.

1996 Meals and Matter: What Decorated Pots are doing in Formative Period Context. Paper presented at the 61st Annual Meeting of the Society for American Archaeology, New Orleans, LA.

Laughlin, C. D., Jr., J. McManus, and E. G. d'Aquili

1992 Brain, Symbol and Experience: Toward a Neurophenomenology of Human Consciousness. Columbia University Press, New York, NY.

Lange, F. W., and D. Z. Stone (editors)

1984 The Archaeology of Lower Central America. University of New Mexico Press, Albuquerque.

Lawlor, E. J., A. J. Graham, and S. L. Fedick

1995 Preclassic Floral Remains from Cahal Pech, Belize. In *Belize Valley Preclassic Maya Project: Report on the 1994 Season*, edited by P. F. Healy and J. J. Awe, pp. 150-172. Trent University, Occasional Papers in Anthropology 10. Peterborough, ON.

Lee, T. A., Jr.

1969 The Artifacts of Chiapa de Corzo, Chiapas, Mexico. Papers No. 26. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Lesure, R. G.

1997 Early Formative Platforms at Paso de la Amada, Chiapas, Mexico. *Latin American Antiquity* 8(3):217-235.

Lowe, G. W.

- 1975 The Early Preclassic Barra Phase of Altamira, Chiapas: A Review with New Data. Papers No.
 38. New World Archaeological Foundation, Brigham Young University, Provo, UT.
- 1977 The Mixe-Zoque as Competing Neighbours of the Early Lowland Maya. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 197-248. University of New Mexico Press, Albuquerque.
- 1989 The Heartland Olmec: Evolution of Material Culture. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 33-67. Cambridge University Press, Cambridge, UK.
- 1981 Olmec Horizons Defined in Mound 20, San Isidro, Chiapas. In *The Olmec and Their Neighbors: Essays in Memory of Mathew W. Sterling*, edited by E. P. Benson, pp. 231-256. Dumbarton Oaks, Washington, DC.
- 1994 Comunidades de Chiapas Relacionadas con los Olmecas. In *Los Olmecas en Mesoamérica*, edited by J. E. Clark, pp. 113-128. El Equilibrista, México, D.F.

MacNeish, R. S., and A. Nelken-Terner

1983 Final Annual Report of the Belize Archaic Archaeological Reconnaissance. Center for Archaeological Studies, Boston University, Boston, MA.

MacNeish, R. S., F. A. Peterson, and K. V. Flannery

1970 Ceramics. Prehistory of the Tehuacan Valley, Volume 3. University of Texas Press, Austin.

Marcus, J.

1989 Zapotec Chiefdoms and the Nature of Formative Religions. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 148-197. Cambridge University Press, Cambridge, UK.

Martínez Donjuán, G.

1994 Los Olmecas en el Estado de Guerrero. In *Los Olmecas en Mesoamérica*, edited by J. E. Clark, pp. 143-164. El Equilibrista, México, D.F.

Merton, R. K.

1957 Social Theory and Social Structure. The Free Press, Glencoe, IL.

Navarrete, C.

- 1960 Archaeological Explorations in the Region of the Frailesca, Chiapas, Mexico. Papers No. 7. New World Archaeological Foundation, Orinda, CA.
- 1974 The Olmec Rock Carvings at Pijijiapan, Chiapas, Mexico and other Olmec Pieces from Chiapas and Guatemala. Papers No. 35. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Nelson, F. W., and B. Voorhies

1980 Trace Element Analysis of Obsidian Artifacts from Three Shell Midden Sites in the Littoral Zone, Chiapas, Mexico. *American Antiquity* 45(3):540-550.

Paradis, L. I.

1981 Guerrero and the Olmec. In *The Olmec and Their Neighbors: Essays in Memory of Mathew W. Sterling*, edited by E. P. Benson, pp. 195-208. Dumbarton Oaks, Washington, DC.

Parsons, T.

1967 A Paradigm for the Analysis of Social Systems and Change. In *System, Change, and Conflict: A Reader on Contemporary Sociological Theory and the Debate Over Functionalism*, edited by N. J. Demerath III and R. A. Peterson, pp. 189-212. The Free Press, New York.

Pendergast, D. M.

1977 In the Soup, as well as other Structures. *Archaeological Newsletter* 192. Royal Ontario Museum, Toronto, ON.

Pires-Ferreira, J. W.

1975 Formative Mesoamerican Exchange Networks with Special Reference to the Valley of Oaxaca. University of Michigan, Museum of Anthropology, Memoirs No. 7. Ann Arbor, MI.

Plog, S.

- 1976 Measurement of Prehistoric Interaction Between Communities. In *The Early Mesoamerican Village*, edited by K. V. Flannery, pp. 255-272. Academic Press, New York, NY.
- 1978 Social Interaction and Stylistic Similarity: A Reanalysis. In *Advances in Archaeological Method and Theory, Volume 1*, edited by M. B. Schiffer, pp. 143-182. Academic Press, New York, NY.
- Pohl, M. D., K. O. Pope, J. G. Jones, J. S. Jacob, D. R. Piperno, S. D. deFrance, D. L. Lentz, J. A. Gifford, M. E. Danforth, and J. K. Josserand

1997 Early Agriculture in the Maya Lowlands. Latin American Antiquity 7(4):355-372.

Porter, M. N.

1953 Tlatilco and the Preclassic Cultures of the New World. Wenner-Gren Foundation for Anthropological Research, Viking Fund Publications in Anthropology 13. New York, NY.

Puleston, D. E., and O. S. Puleston

1971 An Ecological Approach to the Origins of Maya Civilization. *Archaeology* 24:330-337.

Pyne, N. M.

1976 The Fire Serpent and Were-Jaguar in Formative Oaxaca: A Contingency Table Analysis. In *The Early Mesoamerican Village*, edited by K. V. Flannery, pp. 272-282. Academic Press, New York, NY.

Quanchi, M.

1993 Being Discovered: Perceptions and Control of Strangers. In *Culture Contact in the Pacific*, edited by M. Quanchi and R. Adams, pp. 45-56. Cambridge University Press, Cambridge, UK.

Ralston, C.

1993 Response and Change in Polynesian Societies. In *Culture Contact in the Pacific*, edited by M. Quanchi and R. Adams, pp. 100-112. Cambridge University Press, Cambridge, UK.

Rappaport, R. A.

1971a Ritual, Sanctity, and Cybernetics. American Anthropologist 73:59-76.

1971b The Sacred in Human Evolution. Annual Review of Ecology and Systematics 2:23-44.

Reilly, F. K., III

1990 Cosmos and Rulership: The Function of Olmec-style Symbols in Formative Period Mesoamerica. *Visible Language* 24(1):12-37.

Rice, P. M.

1979 Introduction and the Middle Preclassic Ceramics of Yaxha-Sacnab, Guatemala. *Ceramica de Cultura Maya* 10:1-36.

Ricketson, E. B.

1937 Part II: The Artifacts. In *Uaxactun Guatemala Group E*, 1926-1931, pp. 183-292. Carnegie Institution of Washington Publication 477. Washington, DC.

Sabloff, J. A.

1975 Excavations at Seibal, Department of Peten, Guatemala: Ceramics. Harvard University, Peabody Museum of Archaeology and Ethnology Memoir 13(2). Cambridge, MA.

Sanders, W. T.

1961 Ceramic Stratigraphy at Santa Cruz, Chiapas, Mexico. Papers No. 13. New World Archaeological Foundation, Brigham Young University, Provo, UT.

Schiffer, M. B.

1972 Archaeological Context and Systemic Context. American Antiquity 37(2):156-165.

1987 Formation Processes of the Archaeological Record. University of New Mexico Press, Albuquerque.

Schortman, E. M., and P. A. Urban

1987 Modelling Inter-regional Interaction in Prehistory. In *Advances in Archaeological Method and Theory, Volume 11*, edited by M. B. Schiffer, pp. 37-95. Academic Press, San Diego, CA.

Shafer, H. J., and R. L. Brewington

1994 The Preceramic Lithic Assemblage at Colha, Belize: Operation 4046. Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, CA.

Sharer, R. J.

1978 Pottery. In *The Prehistory of Chalchuapa, El Salvador, Volume 3*, edited by R. J. Sharer, pp. 2-203. University of Pennsylvania, University Museum Monographs. Philadelphia, PA.

Sharer, R. J., and J. C. Gifford

1970 Preclassic Ceramics from Chalchuapa, El Salvador, and Their Relationships with the Maya Lowlands. *American Antiquity* 35:441-462.

Sharer, R. J., and M. Kirkpatrick

1976 .The Jenney Creek Ceramic Complex: Type Descriptions. In *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*, by James C. Gifford, pp. 63-83. Harvard University, Peabody Museum of Archaeology and Ethnology Memoir 18. Cambridge, MA.

Sharer, R. J., and D. W. Sedat

1978 Archaeological Investigations in the Northern Maya Highlands, Guatemala: Interaction and the Development of Maya Civilization. University of Pennsylvania, University Museum Monograph 59. Philadelphia, PA.

Smith, R. E., G. R. Willey, and J. C. Gifford

1960 The Type-Variety Method of Ceramic Classification as an Indicator of Cultural Phenomena. *American Antiquity* 25(3):341-347.

Spiro, M. E.

1982 Collective Representations and Mental Representations in Religious Symbol Systems. In *On Symbols an Anthropology: Essays in Honor of Harry Hoijer*, edited by J. Maquet, pp. 45-72. Undena Publications, Malibu, CA.

Stanchly, N. W.

1992 An Analysis of the Faunal Remains from Structure B-4, Cahal Pech, Belize (Appendix 1). *In* Dawn in the Land Between the Rivers: Formative Occupation at Cahal Pech, Belize and its Implications for Preclassic Occupation in the Maya Lowlands, by J. J. Awe, pp. 338-403. Ph.D dissertation, University of London, UK.

Taube, K. A.

1995 The Rainmakers: The Olmec and Their Contribution to Mesoamerican Belief and Ritual. In *The Olmec World: Ritual and Rulership*, edited by E. P. Benson, pp. 83-103. The Art Museum, Princeton University. Harry Abrams, NY.

Thomas, N.

1994 Marginal Powers: Shamanism and Hierarchy in Eastern Oceana. In *Shamanism*, *History*, *and the State*, edited by N. Thomas and C. Humphrey, pp. 15-31. The University of Michigan Press, Ann Arbor.

Thornley, A.

1993 Religious Interaction. In *Culture Contact in the Pacific*, edited by M. Quanchi and R. Adams, pp. 73-86. Cambridge University Press, Cambridge, UK.

Tolstoy, P.

1989a Western Mesoamerica and the Olmec. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 275-302. Cambridge University Press, Cambridge, UK.

1989b Coapexco and Tlatilco: Sites with Olmec Materials in the Basin of Mexico. In *Regional Perspectives on the Olmec*, edited by R. J. Sharer and D. C. Grove, pp. 85-121. Cambridge University Press, Cambridge, UK.

Turner, B. L., II

1990 Population Reconstruction for the Central Maya Lowlands: 1000 B.C. - A.D. 1500. In *Precolumbian Population History in the Maya Lowlands*, edited by T. P. Culbert and D. S. Rice, pp. 301-324. University of New Mexico Press, Albuquerque.

Turner, V.

1969 The Ritual Process: Structure and Anti-Structure. Aldine, Chicago, IL.

Viel, R., and J. Hall

1998 The Chronology of Copan, Honduras: An Update and Discussion. Paper presented at the 63rd Annual Meeting of the Society for American Archaeology, Seattle, WA.

Velson, J. S., and T. C. Clark

1975 Transport of Stone Monuments to the La Venta and San Lorenzo Sites. *Contributions to the University of California Archaeological Research Facility* 24:1-39.

Weber, M.

1963 The Sociology of Religion. Beacon Press, Boston.

Weiant, C. W.

1943 An Introduction to the Ceramics of Tres Zapotes, Veracruz, Mexico. Smithsonian Institution, Bureau of American Ethnology, Bulletin 139. U. S. Government Printing Office, Washington, DC.

Wells, P. S.

- 1989 Cross-Cultural Interaction and Change in Recent Old World Research. *American Antiquity* 54(1):66-83.
- 1992 Tradition, Identity, and Change beyond the Roman Frontier. In *Resources, Power, and Inter- regional Interaction*, edited by E. M. Schortman and P. A. Urban, pp. 175-188. Plenum Press, New York, NY.

Whalen, M. E.

1981 Excavations at Santo Domingo Tomaltepec: Evolution of a Formative Community in the Valley of Oaxaca, Mexico. University of Michigan, Memoirs of the Museum of Anthropology No. 12. Ann Arbor, MI.

Willey, G. R.

- 1970 Type Descriptions of the Ceramics of the Real Xe Complex, Seibal, Peten, Guatemala. In *Monographs and Papers in Maya Archaeology*, edited by W. R. Bullard, Jr., pp. 313-355. Harvard University, Peabody Museum of Archaeology and Ethnology Paper 61. Cambridge, MA.
- 1971 The Great Early Styles and the Rise of the Pre-Columbian Civilization. In *Anthropology and Art: Readings in Cross-Cultural Aesthetics*, edited by C. M. Otten, pp. 282-297. University of Texas Press, Austin.
- 1973 The Altar de Sacrificios Excavations: General Summary and Conclusions. Harvard University, Peabody Museum of Archaeology and Ethnology Paper 64(3). Cambridge, MA.
- 1977a The Rise of Classic Maya Civilization: A Pasión Valley Perspective. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 133-157. University of New Mexico Press, Albuquerque.

- 1977b The Rise of Maya Civilization: A Summary View. In *The Origins of Maya Civilization*, edited by R. E. W. Adams, pp. 383-423. University of New Mexico Press, Albuquerque.
- 1978 Artifacts. In *Excavations at Seibal, Department of Peten, Guatemala*, edited by G. R. Willey, pp. 1-189. Harvard University, Peabody Museum of Archaeology and Ethnology Memoir 14(1). Cambridge, MA.
- 1991 Horizontal Integration and Regional Diversity: An Alternating Process in the Rise of Civilizations. American Antiquity 56(2):197-215.

Wilson, D. C.

1994 Identification and Assessment of Secondary Refuse Aggregates. *Journal of Archaeological Method and Theory* 1(1):41-68.

Wobst, H. M.

- 1974 Boundary Conditions for Paleolithic Social Systems: A Simulation Approach. *American Antiquity* 39:147-178.
- 1977 Stylistic Behaviour and Information Exchange. In For the Director, Research Essays in Honour of James B. Griffin, edited by C. Clelland, pp. 317-342. Anthropological Papers No. 61. Museum of Anthropology, University of Michigan, Ann Arbor, MI.